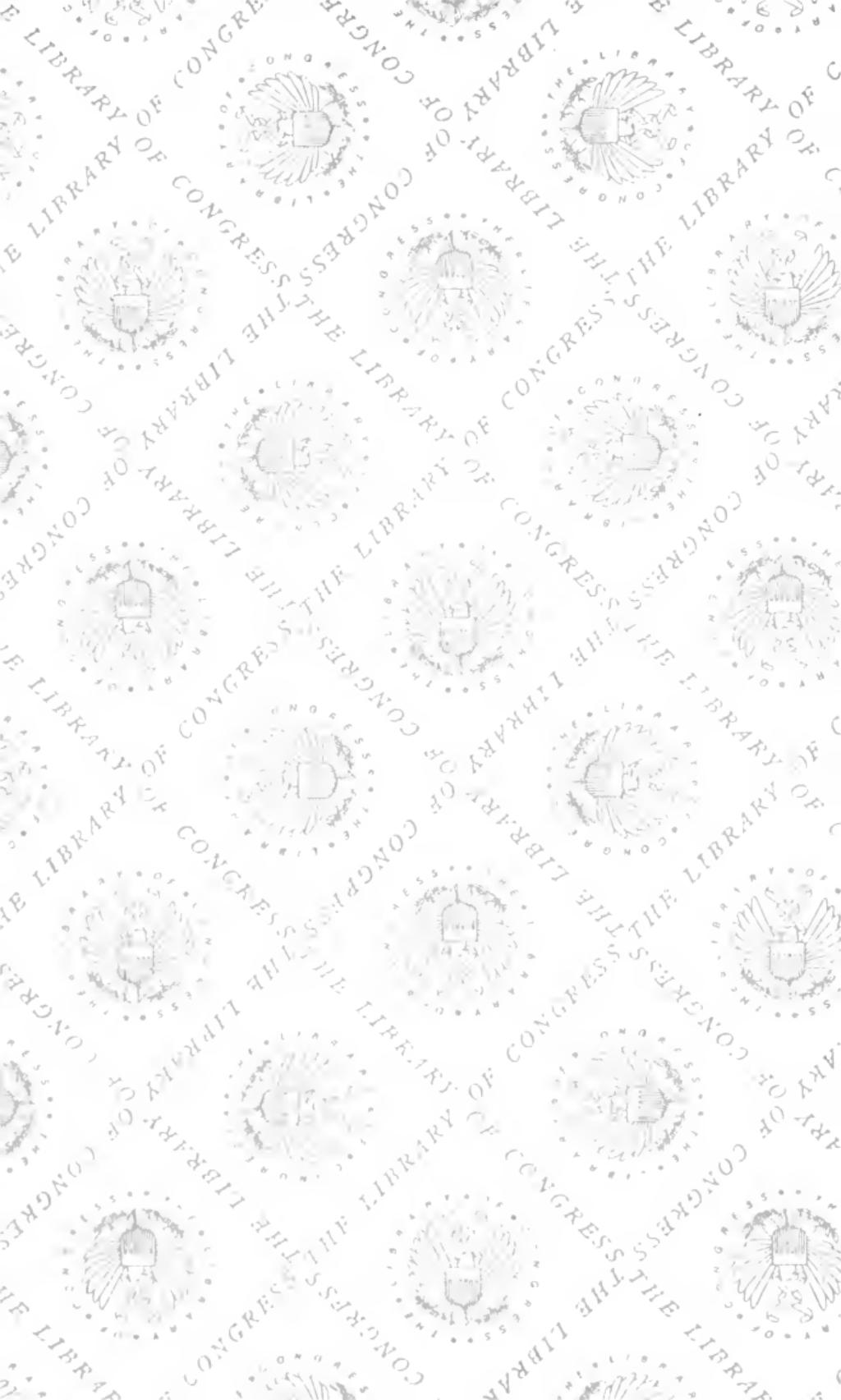


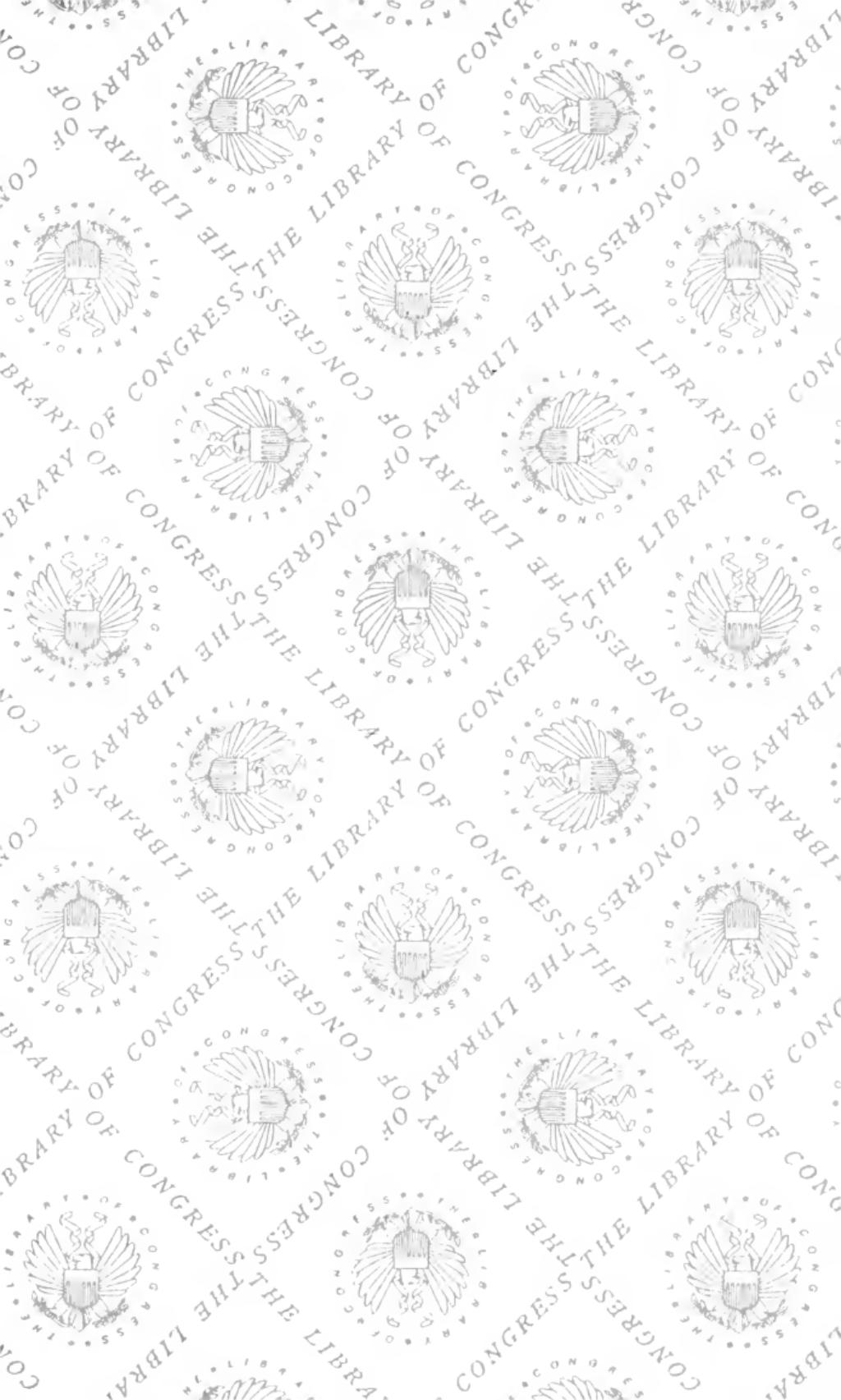
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NOTE. Elevations of Mountain
are given above the Valley level.
Add the two together to find elevation
above the Sea.

Valley Level 4000 ft above Sea



5455

THE ATLANTIC TO THE PACIFIC.

WHAT TO SEE, AND HOW TO SEE IT.

BY

JOHN ERASTUS LESTER,

AUTHOR OF "THE YO-SEMITE: ITS HISTORY, ITS SCENERY, ITS
DEVELOPMENT."

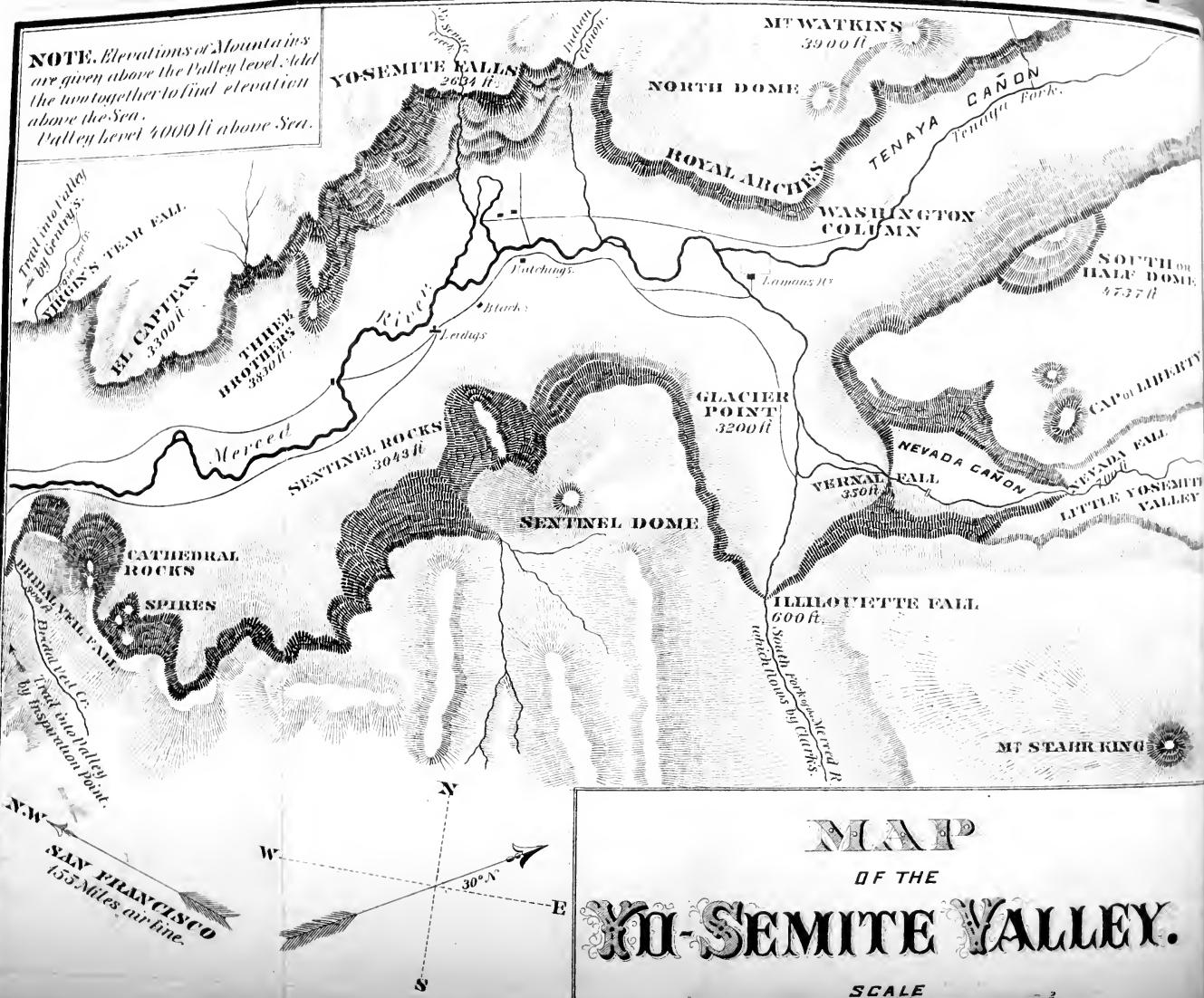
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BOSTON:

SHEPARD AND GILL.

1873.

NOTE. Elevations of Mountains are given above the Valley level, add the two together to find elevation above the Sea.
Valley level 4000 ft above Sea.



YO-SEMITE VALLEY.

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TO

THEOPHILUS E. SICKELS,

General Superintendent and Engineer of the Union Pacific R.R.

In Memory of

PLEASANT DAYS PASSED IN THE EAST,

AS WELL AS IN THE WEST.

PREFACE.

IN search of health, in the early spring of 1872, I turned my face from the Atlantic to the Pacific; and in the following pages I propose to tell of my journey. The task which I have allotted to myself is to so inform my readers, that, should they journey to California, they would know "what to see, and how to see it." Many circumstances conspired to give me peculiar advantages for learning of the people who dwell there, as well as for viewing the country, and beholding the magnificent scenery. These advantages I trust I have turned to account in forming correct judgments.

Parts of this book have appeared in *The Providence Evening Press*, in a series of letters under the caption of "Across the Continent:"

but they have been thoroughly revised ; and descriptions of Colorado, and of gold and silver mining, forming several chapters, have been added. A full Appendix, containing much useful information, has also found a place in the volume.

There are very many Americans familiar with Europe, who know of our Great West only by hearsay ; and there are many people, who, if they could only be informed upon the way to make the trip, would gladly set out for the Pacific ; and there are others who can find only time and means to read of the journey. To these several classes I have tried to address myself.

A book has been described as “a letter to one’s unknown friends ;” and it is with that spirit that this little volume is sent forth on its mission.

J. E. L.

PROVIDENCE, April, 1873.

WESTWARD!

CHAPTER I.

General Plan of the Letters.—The Several Routes from the East to Chicago.—The Erie Road.

I PROPOSE, in a series of letters, to describe not only the points of interest in a journey to California, but to speak of the way to see them. The Eastern man, riding upon an express-train, with head full of plans for money-making, sees little of the country. A Western man travels upon slower trains; and his object is to observe the advantages and peculiarities of the country, both with an eye to investment, and to give information to others. To accomplish any result in gaining facts by railroad travel, one should study well the history and geography of the States through which the road passes; then the location of towns, of rivers, and hills, as well as the general characteristics of the country, will be ob-

served and remembered. A little time thus employed before beginning a journey often saves much disappointment, and really changes what otherwise would have been a very disagreeable ride to a pleasant journey.

In starting for California, one must study well his journey, and decide his route to Omaha; for to this point the various lines all compete for favor.

There are three lines to Chicago,—the Erie, New-York Central, and the Pennsylvania Railroad, and the connecting lines of each.

From Boston or Providence one can reach Albany over the old route, and there connect with the train from New York.

The morning trains out of New York all carry drawing-room and sleeping cars, which make the journey much more pleasant.

The Erie Road offers many attractions. Its coaches are very wide, elegant, and, for easy riding, unsurpassed. These, added to the beauty of the scenery, make it a desirable route.

The road passes along the Delaware River, often far above its waters, with mountains towering upon either side; their faces now cleft from solid rocks, now covered with fine forests. Then, again, the road runs along its bank, the rich bottom-lands stretching far away. From Port Jervis to Susquehanna, we run along this river,

then we enter the valley of the Susquehanna River; and a richer country than from here to Hornellsville you cannot find. Broad fields, rolling uplands, neat farm-houses, meet the view on every side. The road, just before it reaches Binghamton, passes over the Starucca Valley, one of the most picturesque places I have ever visited. This valley reminds one of Lyndwyllyn in Wales. From Hornellsville, by an uninteresting ride, Buffalo is reached, where the Lake-shore Road starts for Cleveland, from whence lines diverge west and south-west. Niagara Falls and Suspension Bridge are reached from Buffalo.

We reach Chicago, and find ourselves in the busy, hurrying, noisy marts of trade. Although her business-houses were nearly all destroyed by the great fire, temporary structures were erected, to which merchandise of every kind poured in from the East; our faith being unshaken that Chicago must be a great city, the key to the great North-west. Now many permanent buildings are already erected, and nearly ready for occupancy. Some are architecturally fine; but it seems that the people are determined to build more substantially than before, expending less in mere ornamentation. Wandering around through streets once familiar to us, we often lost our way; and, had the walls of the courthouse not remained, there would not have been any

thing to tell us of this once famed section of the city. Trade will undoubtedly be somewhat changed; two of the largest dry-goods firms having moved west nearly a mile from the once centre of this interest. Wabash Avenue will undoubtedly be the Broadway of the city; State will have the banks; and the streets running west between Lake and Van Buren, as far as the river, will all be built up with business-houses, thus spreading trade over a much larger space, and equalizing values of real estate. Such pluck and energy were never before shown by the business-men of a city seemingly so utterly destroyed as was Chicago by the fire. Most of the merchants to whom credit was given have kept their promises; and business is seemingly in a healthy condition.

To connect with the lines west from Chicago, leave New York by the night-trains over either road, reaching that city the second morning after, in time for the early trains, which are the regular Pacific expresses. Leaving by the morning expresses out of New York, it will be better to stay over in Chicago, where a day or two can be very pleasantly passed in looking over the track of the fire.

But we must push on westward towards Omaha, that wonder in *city-building*.

CHAPTER II.

The Three Routes from Chicago to Omaha.—A Ride through Northern Iowa.

FROM Chicago you start upon the journey west, and have the choice of three routes, all reaching Council Bluffs about the same time. The North-western, the Rock Island, and the Burlington and Quincy Roads offer about equal advantages ; and, as these companies share equally the profits of the through business, competition, which so well serves the public, is lacking. The first road crosses the Mississippi at Clinton, the second at Rock Island, and the last at Burlington. As I desired to see the rich corn-lands of Iowa, I chose the first, and took the 9.45, P.M., train, and, having given the porter directions to call me at the river, retired to a cleanly-looking bed, and was soon asleep.

The light was just breaking in the east when we looked out of the car-window. We soon reached Fulton, and crossed the river to Clinton. The bridge is in two sections ; an island about the centre of the river dividing

it. The first section is of iron, the last of wood, both together more than a mile in length. This point is about two thousand miles from the mouth of the river, which is navigable for more than four hundred miles farther north,—noble river, bearing upon its bosom the products of the rich valley in its march to old ocean!

From Clinton to Mt. Vernon we pass through the “garden of Iowa.” The comfortable brick and frame houses, the well-built barns, the fences, the sleek cattle, all smack of thrift and wealth. Here the land is rolling, well watered, and as productive as on the prairies of Illinois. They say out here, that when a farmer gets his lands paid for, and a little ahead, he builds a *brick* house. This section is by far the fairest I have seen West, and reminds one of the country seen in passing from Liverpool to London.

After we reach Cedar River, the characteristics of the country change. Cedar Rapids is a busy place, where the river offers good facilities for water-power. Leaving this place, we reach again prairie-lands. For the last two hundred miles, the wheat looks well; and the farmers are hurrying in their corn. Through Indiana and Illinois the wheat was badly winter-killed; and the poor prospects for a crop have sent up the price.

The low price of corn has forced the farmers into raising swine. The corn now in store is placed in tem-

porary cribs erected along the line of the railroad. At one place there were more than a hundred thousand bushels thus piled to be shipped East.

Marshall, a town of some importance, two hundred and eighty-nine miles west of Chicago, suffered from a terrible fire on Saturday last, when the elevator, dépôt, hotels, and several stores, were destroyed. This was the terminus of the road until the Union Pacific was begun; and from here to "The Bluffs" we are in a new country, passing through prairies where plough has never been, and with only here and there a dwelling. Along the old stage-road you see the "schooners," as they call the emigrant wagons, wending their way west. Along with them are sturdy men and women who are to develop the country.

One must bear in mind that we are passing along a section which was, but a few years ago, an unknown land, whose hidden wealth is now to be brought forth to add to the unprecedented prosperity of the Great West.

Passing along by Colo, one is in the section of the great tornado of last year; and a gentleman familiar with the country told me that the "wind blew so hard here, that it would open a jack-knife in one's pocket." I cannot say that he gave me a very good idea by his description.

One meets the dwellers from the east of the Mississippi, going to the Far West, because Illinois and Ohio have become too thickly settled, as they say. They all seemed bent upon the mission of developing the resources of the country, and to do this are willing to leave their homes. There was upon our train a gentleman, some eighty years old, who emigrated to the North-west before there were any States called Ohio, Illinois, or Indiana; and to hear the old pioneer recount his adventures was very interesting. He was now going upon a journey to the West, to visit some of his grandchildren, of whom he had twenty-eight scattered through the country around.

But we are nearing "The Bluffs;" the great Missouri is to be crossed; and we must prepare to disembark from this car, for as yet no satisfactory arrangement has been made to take the cars of the Eastern roads across the bridge. The opening of the Northern Pacific will perhaps force the Union to better serve its patrons. Our train is slowing for this city of the Indian councils held in the days before railroads were known.

CHAPTER III.

The Cities of Council Bluffs and Omaha at First Sight.

To make close connection with the train upon the Union-Pacific Road, we must leave Chicago upon the morning express. As there is some difficulty in making close connections from east of New York, it is better to stay over at Chicago, rest, and then take a fresh start. By all means avoid the night-express out of Chicago, if you consult your ease in travelling. Upon the day-trains, you will have a chance to examine one of these odd contrivances, a hotel-car.

COUNCIL BLUFFS,

the seat of Pottawattomie County, Iowa, is situated about three miles east of the river. The Missouri here, as all along its course, is the same treacherous stream, changing its channel so often, that navigation is extremely difficult and dangerous. The city contains some ten thousand people, and is the oldest and largest in Western Iowa. Formerly, and as early as 1846, it

was called Kanesville, and was chiefly peopled by Mormons. From the circumstance that here the explorers Lewis and Clarke held a council with the Indians, it was named, in the charter of incorporation, Council Bluffs; but the people round about always call the place "The Bluffs." It is the western terminus of the Eastern roads, and has made a hard fight for the eastern terminus of the Union Pacific. For the time being, this difficulty, which has made so much trouble between the two cities, is allayed by introducing a new corporation, called the "Transfer Company," whose province is to put passengers to all sorts of inconvenience and trouble in crossing over the river. More routes to California will remedy this, as well as other annoyances.

The several newspapers published here, a seminary for young ladies, a high school, good district schools, and many fine churches, all contribute to the welfare of the people.

Crossing the river upon a fine bridge built upon iron *caissons* sunken in the river-bed, and resting upon solid rock, we are set down in the wonderful city of

OMAHA.

It is situated about fifty feet above the river at high-

water mark, and contains a population estimated at from ten to twelve thousand people. So changing is its population, that there can be but little dependence put in the figures stated. In its palmier days, probably there were sixteen thousand people gathered here : to-day I hardly believe there are more than nine thousand. It was the first capital of the State, as it was, indeed, the first settlement made in the Territory. A. D. Jones and a few other squatters were here in 1854 ; and, some time in that year, he was appointed postmaster, and immediately opened an office "in the crown of his hat." Riding over the prairies, or strolling about the infant settlement, he would deliver the letters which had collected in the "office." The town began to gain in 1859 ; and the commencement of the Union Pacific gave it fresh means for increase ; and day by day it grew at wonderful speed. Stores and houses, hotels and "saloons," were erected ; and a few months saw the straggling settlement a busy, humming city, over-crowded with adventurers. All the material for the building of the railroad was shipped from here : so that material wealth was added to the city. As the road pushed west, the villages which were established took away the population of the city ; and gradually the place lost its over-crowded look ; demand for buildings ceased ; and to-day the city is quite a tame affair, with more unoccupied

buildings than I ever before saw in any one place. The great hotel erected by the “quixotic Train” is closed; and it would seem that the dreams and hopes of “this modern philosopher” were not to be realized. But, notwithstanding all this, the place is a wonderful example of what can be done in this country in the way of city building in the short space of eight years.

Along the streets there are some substantial brick buildings; but, for the most part, they are one-story framed houses.

The military department of the Platte has its headquarters here. The barracks are located about three miles north of the city, were established in 1868, and can accommodate a thousand men. This is a fine place to see the *élite* of the city, who drive out to witness the reviews upon pleasant days.

From the descriptions which I had read, I expected to find a little more of the “substantial” in the place. Passable streets surely might have been expected; but mud and filth quite prevent walking, and almost forbid riding. Of course, during the summer the streets become dry; but some means should be devised to make them passable for persons on foot.

Just at the dépôt upon the starting of the train west at half-past eleven, A.M., and the arrival of the train at half-past one, P.M., there is all the bustle and confusion of a great railroad junction.

CHAPTER IV.

What is seen and heard in the First Day's Journey upon the Union Pacific.—The Stations.—The Indians.—Our Food.—The State of Nebraska.

AT Omaha our journey upon the Union-Pacific Road begins. But one train leaves daily, running through to the Pacific. Taking a section in a Pullman car, we are entitled to enjoy a drawing-room by day, and a bed by night. These cars are comfortable, cleanly, and the *attachés*, for the most part, polite and accommodating. A throng of strange faces are around us; and all are busily engaged in preparations for the journey.

“All aboard!” is cried; a whistle from the engine is heard; the train moves; and we are off for the Far West.

For three or four miles we pass along the bluffs upon which Omaha is built, and then push out into the open prairie, the fertile lands of Nebraska. A vast plain, dotted here and there with trees, stretches away upon every side. Upon this broad prairie, at long intervals, the cabin of the hardy frontiersman is seen, and now

and then a sturdy yeoman, with team of four, breaking up the rich soil for the first planting.

We pass Gilmore, and reach Papillion, where the train from the West awaits us upon the siding. Running along the Elkhorn River, we soon come in view of the hills to the south-west, which bound the Platte Valley; and, just before reaching Fremont, we catch our first view of the Platte River, along the banks of which, now upon the left, and then crossing to the right, we keep our way as far as North Platte. The old emigrant road followed this valley, and crossed the river at old "Shinn's Ferry," near the station of Lone Tree.

Our day's journey brings us to Grand Island, named after an island in the Platte. Some five hundred people are gathered here, many connected with the railroad. This is an "eating station." So far, our ride has been pleasant; and we have become acquainted with each other. In our car we have the genial Langford of Montana, who has so graphically described for us the Yellowstone Valley; a corps of engineers going out upon the line of the Northern Pacific to push forward that highway through that hitherto unexplored region; several ladies from our own city; gentlemen from New York and Boston, Chicago, and the Western cities,—all genial, and all ready to contribute to the happiness of each other.

Two other Pullmans are ahead of our car, each filled with tourists. As the evening came on, the ladies and gentlemen of the "Berger-family Troupe" visited our car, and gave us a concert, both vocal and instrumental. Our car contains an organ, in as good order as the jarring will permit, for our entertainment.

Music sounds upon the prairie, and dies away far over the plains; merry-making and jokes, conversation and reading, pass the time pleasantly till ten o'clock, when we retire, to awake in the morning far out on the "plains."

We reach Sydney for breakfast, and push on to Bushnell, where we leave Nebraska.

While in Europe, I was often asked if I had seen a "wild Indian," — one who carried a tomahawk, painted his face, and wore feathers in his cap. To the common people in the rural districts of England, their idea of the people of America is, that we all are "Indians," and they all evince great desire to see them; while among the better classes you are closely questioned about the red men of the forests. Of course, we could give but a faint idea of a "wild Indian;" and we have not been helped by the sight of the few "Pawnee" who came around us at Grand Island, saying, "Good squaw!" "Good Injun!" "Give five cents!"

We have passed through the length of the great State

of Nebraska, over whose broad acres the fleet antelope runs, and the little prairie-dog digs its holes, and makes its cities. The broad valleys furnish immense grazing-fields; the river-bottoms, rich farming-lands; and the high ground along the road, sites for towns and villages. As the road pushed out from Omaha, each place, for a time, became the terminus, and was the point where congregated all the roughs and desperadoes. A large town would grow up in a few weeks, and in as short a time pass away; the deserted houses and cabins now telling of departed glory and ruined business.

Through the State we follow along near the path over which the pioneers of 1848 pushed on to the gold-fields of California, and whose track is marked here and there by the solitary graves of those whose strength failed.

Between the settlers over the prairies and Omaha people, there is great antipathy, caused by the unbounded growth of the city. The sturdy farmer tells you of the great sins of the "Omahogs;" and in the city they sing their own praise, and speak of all the State outside as peopled with "Nebraskals."

At Antelope, four hundred and fifty-one miles west of Omaha, we have our first view of the Rocky Mountains, whose snow-capped peaks rise high above the Black Hills, often hiding themselves in the clouds. To these mountains we look anxiously, as they seem impassable;

and we await with eager eye to behold the triumph of the engineer who has laid the track for the iron horse over their very summit.

Many who have written of their journey have praised the "eating stations," as they are called; but to us the food is ill cooked and poorly served. A free ticket to dinner may have found aroma in the cup of chicory, comfort in the burned steak, and solace in the black bread. The company would favor their patrons by reforming this part of their service. Still, do not take a lunch-basket; for it is always in the way. A man who had such an institution, from which every now and then was taken the rich food for the repast, to the evident discomfort of the other passengers, with a devilled ham, a devilled chicken, a devilled turkey and all the fixings, tired at last with carrying about the great basket, exclaimed, "Wife, I wish all these *devilled* things were to the *Devil!*"

But we are already out of Nebraska; and we must make our notes of the young Territory of Wyoming.

CHAPTER V.

The Territory of Wyoming.—The Rocky Mountains.—Sherman,
the Highest Railroad Point on the Continent.—Laramie City.
—The *Woman* Jury.—Great and Little Laramie Plains.

WE now enter the young Territory of Wyoming; and in a ride of thirty-five miles we reach Cheyenne. We have passed through the Lodge Pole Creek Valley, which abounds with herds of antelope, and where are found deer, bears, and wolves. Just before we reach the city, we see directly before us the Rocky Mountains, which stand, with their huge, dark sides against the sky. Fifty miles to the south of Hillsdale, on the South Platte River, is the often-described Fremont grove of cottonwood-trees.

This city of Cheyenne is the terminus of the second division of the road (the first extending to North Platte), and is also the junction of the Denver Pacific Railroad. A few houses around the dépôt, the company's buildings, and a few scattered over the plain, form the city, where, a few years ago, a defiant mob held sway,

and all the roughs from the States found a home. This station is the nearest to Fort Russell: so that we see many of Uncle Sam's boys who have come in to welcome their friends from the East.

This place is five hundred and sixteen miles from Omaha, twelve hundred and sixty from Sacramento, and a hundred and ten from Denver. On the 4th of July, 1867, a single house occupied the site of the city; which afterwards, at one time, had six thousand inhabitants. Two papers are published here; and the people tell you that this is to become a large city. But I apprehend that the removal of the military post would witness the downfall of Cheyenne as a great city, although it must, for a long time, remain as the distributing dépôt for the freight destined for Colorado and New Mexico.

Many of our friends leave us here; and, amid many adieus, the signal is given for us to start for the summit of the mountains.

We now begin to go up hill by a steep grade; and we pass the quarries in Granite Union Cañon at seven thousand two hundred and ninety-eight feet elevation. Wild, rugged, and grand are the hills which surround us. Two engines, with difficulty, are drawing our train up the mountain-side. Away from us on every hand float great masses of vapor, out of which, now and then,

come the snow-clad hill-tops. Again, all is one sea of fleecy clouds, to which we seem so near, that we could reach the floating mass. To the south-west, above the broad, dark line, rise the sunlit sides of Long's Peak. Never, till this moment, did I realize the truthfulness of Bierstadt's scenery of these hills. The dark, deep shadow, the glistening sides, and the snow-capped peaks, with their granite faces, the stunted growth of pine and cedar, all render the scene such as he has painted it.

Snow-banks twelve feet deep are along the road; and in the ravines between the mountains it must be much deeper. By slow stages we reach Sherman, at an elevation of eight thousand two hundred and forty-two feet above tide-water. This point is a mile and a half above the water in Narragansett Bay; and here the railroad reaches its highest elevation on this continent. A severe storm prevails; and, if one should desire to paint desolation, here is the scene for him. The necessities of the road alone keep a few people about the station. In the distance are seen Long's and Pike's Peaks, with the Elk Mountains to the north.

At this point the air is so rarified, that there is some difficulty in breathing; but still all the time while the train is here ought to be occupied in walking about the station, observing the different rock-formations and the little mountain-flowers, which, with their tiny

blooms, greet the eye of the tourist, reminding him of their more gaudy sisters which dwell in the valleys. There have been formed and classified some three hundred varieties of plants upon the plateaus called Cheyenne and Laramie Plains.

From Sherman to Laramie the train runs without steam, down a grade of forty-seven and a half feet per mile, controlled by the air-brake. Dale-Creek Bridge is a noble piece of trestle-work, one hundred and twenty-six feet high, spanning a picturesque valley, through which trickles the creek.

Now the fantastic red sandstone rocks appear, rearing their spires, domes, and castles from five hundred to a thousand feet above us upon the hillsides. The water, having washed away the loose material, has left the hard rock, whose form has named a station,—Red Buttes. To the south we see the mountain-range of Medicine Bow, among whose deep serrated sides are found the springs which feed the Laramie River.

We are now approaching Laramie City,—the end of a division, the proposed site of extensive railroad-shops, and quite a busy place, the natural outlet of the Laramie Plain, which is now opened up as a great grazing field, over which even now thousands of cattle are roaming.

Several churches, schools, and a paper, tell of pros-

perity. The people around the station are more intelligent-looking than at any other place since leaving Omaha. A good hotel has been erected by the company; and you have here a good meal, both well cooked and well served.

This is the place where sat the first jury of women the world ever witnessed, who heard and decided a cause under the forms of law. It is said that they all invoked Heaven's aid in making up their verdict. How far the household duties were neglected during the trial is not told; but their obedient husbands, who staid at home to mind the children, sang away the hours with,—

“Nice little baby, don’t get in a fury,
’Cause mamma’s gone to sit on the jury.”

Laramie Plain is a broad expanse of country of great fertility, well watered by the river and by a fine clear lake. Flowers of before unseen shape and color cover the fields, furnishing a gay carpet for the lovely landscape around us. At this station, and all west of here, we shall see the “John Chinamen” as road-hands. We pass Lookout, Rock Creek, Como, from each of which places the broad rolling prairies stretch far away. We now strike into the coal-country; and at Carbon Station some three hundred men are employed, bringing to the surface the hitherto unknown coal-deposits for ship-

ment as far east as Omaha. During the night we pass out of this region ; and morning finds us upon the banks of Green River, where begins the Little Laramie Plain.

Green-river Station is now a deserted city, once a noted station on the overland road, from which point many an exploring expedition has started forth.

A poor breakfast is taken at this place ; and, after a stop of thirty minutes, we push away to the west.

The sun has risen brightly upon this sabbath day, to light up the deep ravines through which we are to find our way down into the Salt Lake Basin. We have arranged to hold a service commemorative of the day ; and, amid the grand scenery of these everlasting hills, our praises will go up to “Him who has created all things.”

CHAPTER VI.

Sabbath in the Rocky Mountains.—Services in a Car going Twenty Miles per Hour.—Evanston.—Echo and Weber Cañons.—The Wahsatch Mountains.—The City of Ogden.

THE country for some miles is very uninviting, barren hills and sage-bush land meeting the eye on all sides. Passing Bryan station, the next, Granger, is in Utah Territory. The ride to Evanston is very interesting. The time having arrived, friends from the other cars come into ours, and with the conductor, porters, and train-men, fill every seat.

SABBATH SERVICE.

By request, I read the Episcopal service appropriate for the day, and, after this, the sermon delivered by Rev. Mr. Murray of Boston, on the subject, "To die is gain."

The hymn,

"When, Lord, to this our western land,"

was then read; after which a select choir, composed of members of the troupe, sang,—

“Nearer, my God, to thee,”

and several other familiar tunes, closing with our national hymn.

Our services lasted nearly two hours; and the closest attention was given by all the passengers and officers, who deemed it a privilege to observe the holy day. Here, in the very midst of the Rocky-mountain wilderness, our thanksgivings were offered up; and our music floated out upon the air, and resounded through the deep caverns, and among the towering hills. Seldom have services been held under such circumstances; and seldom have worshippers been more profoundly impressed by the scenes about them. Grand and solemn stood the everlasting hills, witnesses of our devotion.

EVANSTON.

We dined here from bountifully-spread tables, and pushed on for Wahsatch, just beyond, which is the entrance to Echo Cañon. Passing through a tunnel seven hundred and seventy feet long, dug into a hill of sand-stone, we enter the North Fork. Around, the hills rise abruptly on every side; deep dark cañons dividing them. We see the towering, castle-like rocks which

stand up out of the hills; we rush on through the ever-narrowing cañon until it becomes only a mere gorge, down which Echo Creek dashes, marking out the track for the road. It seems that God himself had designed this to be the gateway through which we were to enter the valley. Castle Rock, Hanging Rock, Pulpit Rock, towering cliffs and receding hills, open up to view as the train speeds its way. At the narrowest part of the ravine, on the top of the towering cliffs, you can still see the fortifications erected by the Mormons in the year 1857; but happily the huge bowlders were never used for the destruction of our troops, and now only mar the landscape,—a monument of folly.

Away to the south now open in full view the snow-clad Wahsatch Mountains, among whose springs the Weber River takes its rise, and flows into Salt Lake, near Ogden. As we come to the river, it seems that there is not room enough for both railroad and river, so narrow is the pass; but man has conquered, the very mountains furnishing a safe road-bed. Echo City is just beyond this narrow pass; and as it is the centre of a fertile region, with the several rivers furnishing fish in abundance, the place seems destined to gain some importance.

Weber Cañon is now entered; and for miles the track is laid along the banks of the dashing, foaming, angry

stream. High mountains bound this ravine on each side, and in many places the road-bed is cut out of the hillside. Every step presents new wonders. The rocks, by their volcanic action, have assumed peculiar forms; often the strata, standing perpendicularly from the hills, having the appearance of huge walls. These serrated rocks at one point are called "The Devil's Slide."

A large thrifty pine, whose giant form was reared long before the hardy pioneers toiled through the pass, long before the Mormons came here, and long before a railroad was dreamed of, marks a thousand miles west from Omaha. There it stands, a solitary sentinel, telling to every passing traveller the same tale of home far away.

Occasionally we catch glimpses of the peculiar yellow stone which has rendered famous large sections far to the north, now made forever a public park, a national playground. Granite, slate, conglomerate, sandstone, and limestone, are all seen in a journey through these hills.

Just where the river is forced between two great walls of rock into a foaming, boiling current which rushes madly on, the road crosses the stream, and we soon emerge into the fertile plain of Salt-lake Valley. The Wahsatch Mountains are now passed, and we see on either side the well-tilled farms of the Mormon settle-

ments. A short ride takes us to Ogden, the junction of the two Pacific roads.

OGDEN.

This is a city of four thousand souls, mostly Mormons, and seems, from its situation, to be destined for a large town. But our train has now stopped, and the conductor announces that passengers going west must change cars. Having decided to go to Salt Lake City, we leave the car, which for nearly three days has been our home, where ties of friendship have been formed which will last through life, and take our place in the cars of the Utah Central Railroad. "Good-by!" is said; a "God bless you!" breathed; and we part with many of our friends, whose duties call another way. Some propose going to the city of the "Saints :" so we are not quite alone. At the signal, we start off along the banks of the lake, nearly south; and, having passed the pretty settlement of Farmington, a ride of two hours, and thirty-six miles, brings us to this city of a peculiar growth and development. Here let us rest for a day.

CHAPTER VII.

Salt Lake City, its Situation, its People, the Buildings. — The Mormons, their Houses of Worship, and Schools. — Brigham Young. — The Future of Utah.

My former letters have been penned upon the cars, riding at the rate of twenty miles per hour, this in the city of the “Saints,” known as

SALT LAKE CITY.

Approaching the town, the first object which meets our view is the huge roof, oval in form, of the tabernacle; then the groves of trees, blooming in almost tropical luxuriance; and then, as we draw nearer, the adobe houses of the farmers; and, when within the city limits, the cottages of the people, nestled among their apple and peach orchards.

In the mellow twilight of the sabbath day, the great snow-clad mountains, whose weird forms rise on every side of the valley; the houses of the rich Mormon trader;

the cottages surrounded by luxuriant gardens; broad streets, along either side of which rippled a little brooklet; long blocks of stores; the walls of the Mormon houses of worship, with the people who abide here going and coming,—are the sights we see in riding from the dépôt to our hotel.

In journeying across the continent, it is better for one to stop over for a few days in this city, as well for rest, as to see this interesting place, and also to make preparation for the balance of the trip; for, if not already provided therewith, a little gold will be required to pay for meals and other unavoidable expenses. The house to live at is the Townsend, where guests will find a genial landlord and a gentlemanly clerk. The table is well supplied with the best of the market; the rooms are cleanly, and the attention good.

Refreshed by rest and sleep, we start out to "do" this city, to which of late so much attention has been given. The town is located upon a spur of the Wah-satch mountains, the northern part of the city being well upon the "bench," from which a glorious view is had of the rest of the town and adjoining country. The city was settled July 24, 1847, by Brigham Young and his followers, who, driven from Nauvoo, had pushed westward through the wilds of what is now Iowa, and 'ross the plains, through the mountain-defiles, into this

valley. This band of religious zealots soon organized a government, calling their State "Deseret" * electing Mr. Young president,—a title and office which he holds to this day. As is well known, he was governor of Utah for many years, until 1857, during which time he did much towards developing the Territory, whose sixty-five thousands of square miles include farm-lands, great inland seas, wild mountain-ranges, and rich mines of gold, silver, lead, and iron. The valley in which this city is situated is bounded on the east by the Wahsatch, and on the west by the Oquirrh mountains, through which deep cañons extend, the only doors of ingress and egress. To the east are Emigrant and Parley Passes, through the former of which the Mormons came into the valley. As we came out of Echo Cañon, the old stage-road left the railroad, and turned off to the south, following the Weber River, and entering the Salt Lake Valley by the first-mentioned cañon.

Standing in the main street, and looking south-east, we see Little Cottonwood Cañon, where is located the Emma Mine, which is now considered the richest argentiferous galena deposit in the world. To the west we see Brigham Pass, where mines exist rich in golden treasure. Russ Valley mines are well known;

* This name signifies the land of the honey-bee.

and, indeed, every cañon and every mountain-side present great inducements to the hardy miner.

From all the streets, the mountains are seen, some snow-capped all the year; and from some points the lake and River Jordan are in view. The hills are well wooded; maple, pine, and oak abounding, and good building material,—sandstone and a hornblende granite, of which they are erecting the “temple.”

The streets are all at right angles, broad, well-shaded, and to some extent graded. Many good and substantial structures have been erected; and the dwellings which contain the twenty-two thousand people are comfortable and neat, some of them being elegant mansions. Outwardly, comfort and prosperity are seen.

The stores are well stocked with merchandise; and not only can you find the needful, but Luxury has gathered many of her votaries around her here, to the peril of the young Mormon girls and boys. The church people try to prevent their Gentile brothers from opening shops within the town, which they trusted Nature had so defended that they would alone occupy it, undisturbed by those not of their faith. That the Mormons may know their friends, by an edict of the church a sign is placed over the stores, upon which is painted a *large eye*, with the words, “Holiness to the Lord. Zion’s Co-operative Mercantile Institution.” Here the *followers* are ex-

pected to trade: but competition will soon break down the barrier; and each will go where he can buy cheapest and of the best.

Fortunately, next morning after our arrival was to be May-day for the children: so a good Mormon said to us, "I wish you would go down and see if poly-gā-mous children are not as good as mono-gā-mous children" (as he spoke it). Of course we were on hand to see the six thousand school-children with their parents start upon their excursion. No better chance could be offered to see these people in their holiday garb; and we must admit they *seemed* happy: certainly they looked well; and nothing occurred to remind us of their peculiar customs. Said a good bishop of the church, "This happy sight is the result of our religious faith." In vain did we look for those woe-stricken faces which had been described to us, and for the signs of degeneracy in the children.

THE TABERNACLE

is a huge building, two hundred and fifty feet long by a hundred and fifty feet wide, with forty-six stone columns, from which springs the roof, probably the largest self-sustaining ceiling in the country. Entering the building, the organ, second to but one, rivets our attention; and the plain pine seats on floor and in

galleries seem incapable of being numbered. There is said to be sitting-room for fourteen thousand; probably ten thousand can be comfortably seated. Immediately in front of the organ is a desk or pulpit, raised very high, where Brigham sits, and from which he preaches; next below, one for the counsellors, then one for the bishops, then the deacons; and on either side of the platform are the seats of the "seventies." There is little paint, as yet, inside the building: so that all looks cold and uninviting. The doors are so arranged, that the people can depart in a few minutes from all sides of the structure.

In the ceiling we noticed numerous little holes, and asking our Mormon friend their use, was told that through them chains could be let down, to which scaffolding was attached when they wished to make repairs: thus much expense is saved in the operation, as the ceiling is sixty-five feet from the floor.

At this time but little has been done upon their much-talked of temple. If the plans are carried out, it will be worthy the best age of architecture. Until the opening of the railroad, all the stone was hauled by ox-teams, some twenty miles, over a mountain-road, so that the work was necessarily slow. It is to be a hundred feet high, and, upon the ground, ninety-nine by a hundred and eighty-six feet and a half, with towers and spires at each corner.

As you would expect, Brigham has a large and valuable plat of ground enclosed with walls, within which are his various houses, called "The Bee," "The Lion," &c., his school-house, and other buildings. His farm is not so well cultivated as we expected to find it; and some of his followers, if not as good at "scheming," are far better at "farming."

The theatre, the council-house, the city hall, and university are all stone buildings, of some architectural finish. There are several newspapers published here, of none of which can we say much good as to their ability or their mechanical execution.

MISSIONS.

Several denominations have established missions here, all of which, we were told, were flourishing. The Protestant-Episcopal Church have founded St. Mark's, and have just completed a fine stone chapel, where services are held regularly.

THE SCHOOLS.

For religious purposes the city is divided into twenty wards, in each of which meetings are held, presided over by a bishop; and for political purposes these divisions are preserved. The people of each ward, both

Mormon and Gentile, govern the schools, which in theory are independent of the church; but, as the Mormons are so largely in the majority, they exercise, in fact, the control. The schools are free to all upon the payment of a small tuition-fee for their support. The Sunday schools are held in the same buildings.

GENERAL VIEWS.

We took pains to call upon Mormon gentlemen, hear their views, and observe their customs. All of them attributed their recent troubles to the rumsellers, who attempted to break down their license system established by the city government. The sum fixed upon was three hundred dollars per month, to be paid at least three months in advance,—terms to which the dealers were not inclined to accede, hence their troubles. They do not attempt to conceal their satisfaction at the recent decision of the Supreme Court: still none of the leaders spoke in any defiant tone; but all attributed their deliverance to *divine* interposition. We heard their arguments in favor of polygamy *in extenso*; and, when we asked them plainly, they had to admit that their wives were often unhappy when a new one came into their husband's house. All their arguments are answered by the fact that the woman of

Salt Lake is not ennobled, and made the equal of man, but is his slave,—a condition unworthy of our age and country.

Their religious tenets may be pleaded; their Bible quotations may be numerous; and the *men* of the city may show their material gains, their lands and buildings, their stores and their merchandise: still for *woman* we plead, and say, that, under their social organization, she cannot reach a true and noble womanhood. A mother she may be; but a matron she can never be.

SUBURBS OF THE CITY.

A ride about the city is inspiring; the views are grand, the scenery delightful, and the roads in fair condition. As the houses of the Mormons are passed, one can know the number of his wives by the number of front-doors, although the wealthier have houses in different parts of the town, and farms in the country, each presided over by a favorite wife.

The water, which is conducted from City Creek through the streets of the city, furnishes a good supply for use and irrigation, and gliding along on either side, enclosed by grassy banks, gives to the streets an air of coolness even under a summer's sun.

BRIGHAM YOUNG

is, of course, the "lion" to be seen. By politeness of his secretary we were introduced to him. He is a well-preserved, good-looking man of seventy-two, with frank, open face, the air of a gentleman, above the ordinary stature, in short, a man you would select from the many as one of talent. His address is good, easy in speech, and with that suavity which wins friends. Thus he seemed to me as we conversed together for a few minutes.

He has taken a prominent part in the public improvements in the Territory; organizing lines of stages, expresses, a telegraph; building railroads; and opening avenues of communication between the various settlements. He is beloved by his followers; and over the people he has great influence.

Thus much must be said: still we do know that life was for a long time unsafe in the Territory; that Gentiles were forbidden to open mines or carry on trade; that even the Mormons themselves were forbidden to prospect for gold and silver; that "councils" were held, and that men were missed from their homes; that people were warned out of the Territory; and that the "Danite pill" was too often administered. Had Brigham taken the course to invite immigration, to-day

Utah would have been a bright star in our constellation of States, her lands ablaze with the fires of smelting furnaces ; and the hills would have echoed with the noise of the mills, crushing out the wealth of her mountains. Her resources would have made her, probably, the first in mineral richness in the Union.

The railroad is certainly working some changes : new people are coming in ; new impulses to trade and development are given ; and a new party is being formed. A gentleman who has lived in the Territory four years told me that a great change had taken place among the Mormons themselves, respecting the belief and practice of polygamy, within that time. There are probably, at this time, a hundred and thirty thousand people in the Territory, two-thirds of whom are Mormons, of whom, again, one-third do not believe in or practise polygamy ; and their number is increasing. May we not hope that the railroad, the telegraph, and the missions will soon carry to this land a new civilization in accord with our national instincts ? The wealth of her mines, the fertility of her soil, and the salubriousness of her climate, are calling thousands into her borders ; the church and the school must follow ; new ideas will be given to the rising generation ; and the occasion will be furnished our statesmen in Congress to act wisely and justly in dealing with this problem, which now so vexes all who attempt to solve it. Let us pray for light and peace !

CHAPTER VIII.

The Central Pacific.—The Town of Corinne.—The Great Salt Lake.—The Humboldt River.—The Palisades.—Battle Mountain.—Reno.

AT Ogden we take the cars of the Central Pacific, which company own both the day and sleeping coaches. Having engaged our quarters several days before, we found good accommodations awaiting us. By a singular coincidence, a friend whom we left in Europe in October last came in upon the Eastern train, on his way home to San Francisco, thus adding much to the pleasure of our journey. At Ogden we also found Mr. K. D. Browne, formerly of Providence, who, as agent for the Pullman Car Company, gives entire satisfaction to the travelling public.

As the train started off from the dépôt at twenty minutes past five, P.M. (Sacramento time), we looked about us, and beheld many new faces, with whom we were to become familiar in a ride of two days and nights.

We have the Great Salt Lake to our left, and on our right the great mountains, from whose sides the road-bed has been hewn, and far up whose faces can be seen the marks which fix the height of the once even larger inland sea than that we now look upon. Hot springs abound, from which rise clouds of sulphurous vapor. Bonneville is the first station upon the road; and passing through fine farming lands, now rich in promising crops of wheat, barley, and corn, we reach Willard City, near which are many evidences of volcanic eruptions in extinct craters; and, passing the thriving Mormon town of Bingham City, we are at Corinne, on the west bank of the Bear River. This place has already grown into some importance as the distributing dépôt for Montana; and, as it is situated in the midst of a fine farming country, there is here the foundations of a healthy growth. Stages start from here to Virginia City (three hundred and fifty-eight miles) and Helena (four hundred and eighty-two miles) daily. We push on our journey by Blue-creek Station, and are now at Promontory, which was the point where the two roads met; but, by an order of Congress, the Union Pacific gave up the track, from this point east to Ogden, to the Central, and made the latter place the union. Interest will always attach to this place as being the scene of the ceremonies, grand yet happy, solemn yet full of gayety, which took place at

the driving of the last spike. The lightning sounded the stroke which welded the iron bands uniting the oceans.

From the hills here the best view is to be had of the

GREAT SALT LAKE,

which stretches away to the south, a vast sea. This lake is a hundred and fifty miles long, and forty-five wide; contains several mountain-like islands, as Church, Antelope, Fremont, Stansburry, and others of less size. Of these islands, one is stocked with horses, one with cattle, and another with sheep. The waters of this lake are so impregnated with salt, that a person easily floats upon the surface. There flow into this sea the waters of Weber, Jordan, Bear, and other rivers; and yet this lake has no visible outlet. Its waters are reduced by evaporation; and in the summer the salt that is left along the margin is carried away by wagon-loads. Some scientists assert that there is some hidden stream, which continually flows from the lake; but one fact remains to be explained,—how the waters are now some twelve feet higher than when the Territory was settled; fields where the early pioneers planted their grains being now under the waters.

The darkness is now upon us, and we must retire for

our first night upon the Central Pacific. Our train runs very slowly; and the luxurious coach furnishes us with a good and clean bed. During the night we pass many unimportant stations in Utah, and run through the Great American Desert,—a vast waste of about sixty miles square, without doubt, at some remote day, the bed of a vast saline lake. As we begin to rise the long rough ridge of the Goose-creek Range, some signs of vegetation are to be seen; so that as we look out of our window, with the morning sun just rising behind us, we begin to see a few cattle grazing among the sage-brush. A few miles on, and we find ourselves at Toano, where the second division (the Humboldt) begins. The first (Salt Lake) division extends from Ogden to Loray. The station is so located, that in time it must become a distributing point for several mining-districts. This is the first of importance in Nevada.

Leaving this place, the road begins to climb Cedar Pass, towards which the emigrants of former days looked with longing eyes, and through which they toiled after enduring the hardships and exposures of their march across the desert. Through the pass we enter the Humboldt Valley. The country around looks very uninviting; the stream is a mere muddy brook; there is some snow still upon the ground; the air is cold, the sky cloudy: so we resign ourselves to a day of very uninter-

esting travelling, only brightened by the hope of soon reaching the Sierras. We stop now and then at stations the location of which seems to us so strange, but which we suppose to be demanded by the railroads, perhaps as the nearest point for some interior town. As we are in the Valley of Humboldt,—a fertile section, but sparingly settled,—let us describe the river which determined the line of the road.

HUMBOLDT RIVER

is a stream of little real importance. Rising in the mountains of the same name, it takes a westerly course of some two hundred and fifty miles; sometimes a muddy, sluggish stream, but at some points a running, rapid river. The road passes part of the way upon the north; but, when near Carlin, it crosses to the south side. Near the station called Brown's, we see the lake into which the river flows: it is some thirty-five miles long and ten wide; and to this must be added Carson Lake,—for in the rainy season they seem to be almost one,—a vast lake with two rivers flowing into it, but with no visible outlet: hence the name “Sinks of the Humboldt.” Our view of this lake was had just after sunset, with the pale moon just rising, and shedding her beams upon the waters.

All day long we have run through a very unpromis-

ing country, unpeopled and unknown. Such stations as are required for the service of the road must be erected at the proper intervals along the line. Winnemucca is such, for here a division begins; and the employés of the company make the city, and their shops and houses make by far the most of the buildings.

Night again finds us out in those vast wastes. As to-morrow is to be one of grand sight-seeing, we must console ourselves that the tameness of this part of our journey is to prepare us for the grand passage of the Sierras.

A good night's rest has refreshed us; and an early hour sees us up, and looking around to find out our position, as the mariner out upon the ocean daily takes his "observations" to determine his place in the great sea.

THE PALISADES.

Humboldt Cañon does not possess the interest that is found in either Weber or Echo Cañon; but still, at some points, there is a grandeur which strikes us as we look up its bleak, brown, yet bare walls. These rock-faces rise so high, and press the forming river so close, that we seem to be rushing into a deep gorge, out of which there will be no escape; but the skill of the engineer has gained another victory, and built a road-

bed over which we pass in safety. We observe here and there seams of iron ore and copper, which tell of the riches which are held in store by these brown old hills. Red Cliff is the highest point, rising some thousand feet above the water. This narrow gorge, about twelve miles in length, seems to have been opened in the old hills for us to pass; and, jealous of their towering grandeur, they raise their craggy, frowning sides, leaving a meagre space for river and road-bed.

BATTLE-MOUNTAIN STATION,

the freighting-point for a large mining-district, is located in a barren, clay country, with little to see save dark hills far away, and the bunch-grass scattered over the plain. The station-house is a creditable frame building; and by cultivation and irrigation a good garden has been made to the west of the hotel, and a fountain throws up its sparkling waters,—a refreshing sight to the weary traveller over the barren wastes.

During the past night, we entered the valley of Truckee. The river of that name has its rise in Lakes Tahoe and Donner, and flows by two branches, until, near the city (named from the river), they unite, and empty into Pyramid Lake. I refer to this little valley, only ten miles long and about two wide, because here

it was that the early pioneers, both themselves and teams exhausted and nearly dead from their toils in the desert, found a resting-place, whose green fields furnished food for their horses and cattle, and whose cooling waters and shady trees gave them strength and hope.

RENO.

Of this place every one has heard. It is situated sixteen hundred and twenty miles west of Omaha, and a hundred and fifty-four east of Sacramento. This lively town is said to contain two thousand inhabitants, has a little paper called "The Crescent," and boasts itself a great city.

What in reality gives to Reno any importance is, that it is the nearest point to Virginia City,—some twenty-one miles due north. The country all around here is full of interest; and we purpose to stop over on our return, visit Virginia City, the famous Comstock Lead, and the mines and mining-camps in the section.

We are just leaving the little station of

VERDI,

and are now fairly within the cañon, toiling up the eastern side of the Sierras. The river rushes angrily

by us, confined within its walls of rock, their sides thickly covered with timber; and, toiling on, we now cross the dividing-line, and are in the "Golden State," — the land for which we have toiled, but whose borders now greet us with hills covered with grand old trees, with little patches of meadow-land upon the banks of the stream, with the pleasing song of birds, a cooling breeze, and a clear sun.

The whistle sounds, and we soon draw up to the dépôt in Truckee. In the midst of a heavily-timbered country, its wealth is in its saw-mills, turned by the waters of the river; and huge piles of boards and timber now encumber the ground, and block up the streets. There is said to be a good hotel at this place, from which many fine excursions into the country around can be made. The town is elevated five thousand eight hundred and forty-five feet above tide-water, contains between two thousand five hundred and three thousand people, has a paper ("The Tribune"), schools, and churches. The houses are all built with regard to the snows of winter, traces of which are even now seen in great drifts upon the northern sides of the buildings and lumber-piles.

Here we enter upon the Sacramento and Oregon division of the road; and, having improved the thirty-minutes' stop here in looking about the place, the bell

summons us to our seats in the train, which from here is to be drawn by two powerful engines up the steep sides of the hills to the summit of the Sierras, thence to be hurled down by the mere grade, into the Sacramento Valley. A whistle ! We are off !

CHAPTER IX.

The Truckee Region.—The Snow-Sheds.—The Summit of the Sierras.—The Run down the Mountains.—American Cañon.—Placer and Hydraulic Mining.

FROM Truckee to Summit, in a distance of fifteen miles, the road rises nearly twelve hundred feet, or about eighty feet to the mile,—a grade sufficient to require the most powerful engines to draw the cars. Our pace is slow indeed; but we must bear in mind we are now doing what, a few years ago, the engineers themselves despaired of accomplishing,—crossing the Sierras in a railroad-car.

The morning sun is casting his early beams upon the landscape, lighting up the great pines and firs, causing the snow-clad mountains to glisten, the tumbling waters of the river to sparkle, and the surface of Donner Lake, seen now and then between the hills, to shine like a mirror. Eleven miles beyond Truckee, we enter a cañon called Strong's, and climb its tortuous course, rising higher and higher, until we see far below us the lake,

the line of the road, and hills which, a little while since, seemed themselves impassable barriers. We now enter the line of those well-built snow-sheds, framed, boarded, and braced against the fierce snows. From the openings in the sides, we catch glimpses of the landscape, so lovely, that we all regret that necessity compels these ugly sheds, so dark and gloomy, for most of the way, that we cannot tell shed from tunnel, of which there are many in this section. Some Yankee will find a way to open this beautiful landscape to view during the summer; while in the winter the road shall be protected from those great, drifting snows for which the Sierras are so noted. Even to-day (May 16), the snow still remains in huge piles against the sides of the sheds, while all along inside it lies in a drift from two to four feet deep. After snorting and puffing, whistling and screaming, for an hour and a quarter, our pair of iron horses stop in the snow-sheds at the station called "Summit." Here we have a good breakfast, well cooked and fairly served; although we could not expect waiters enough to attend in a rush such as they have when the passengers, with appetites sharpened by mountain-air and a long ride, seat themselves at table, and all with one voice cry, "Steak! coffee! bread! trout! waiter! a napkin!" Even a company of regulars would be somewhat disconcerted at such a confusion of commands.

Looking around our station, a single building perched here upon the mountain, we perceive that near by are many higher hills, peaks of the Sierras, whose bare and craggy sides lift themselves one upon another until their tops, snow-clad, are lost in the clouds.

Here these great granite hills form the divide, which determines the course of many mountain-streams, all of which, to the west by many windings, find their way to the Sacramento.

“Ding!” goes the bell. “All aboard!” is cried; and we start upon a run down hill. We are now seven thousand and forty-two feet above the sea; the valley of the Sacramento is two hundred and sixty-nine feet, and is distant a hundred and five miles. No steam is now required, the grade being so great, that the train is propelled under full breaks at a great speed, held by those little chains, by the breaking of one of which, or of a wheel or an axle, we would be hurled down into the chasm below. We are still gliding along steadily under the control of the brakemen. No train should be, and I am told seldom is, sent from Truckee without having the air-brakes attached, and every other precaution against accidents. With all the care, and all the devices for controlling the train, great risk is run upon such a fearful grade.

In running from Summit to Dutch Flat (thirty-eight

miles), we fall three thousand six hundred and thirty-nine feet, and to Colfax (fifty-one miles), four thousand six hundred and twenty-one feet,—grades which, only a few years ago, were considered insurmountable. As we glide along, we catch occasional glimpses of the Yuba River dashing between the hills, and, farther on, the Bear River, winding its way towards the Pacific. Losing sight of these views, we soon reach the head waters of the American, and, passing several unimportant stations, we reach Emigrant Gap, where the old road, so long and weary to the pioneer, crossed the mountains. By a tunnel we pass under the old trail, and rush on down towards the valley; and, after a ride of about a dozen miles, we enter the

GREAT AMERICAN CAÑON.

Here, between almost perpendicular walls two thousand feet high, the river, hard pressed by the hills, roars and tumbles, impatient of restraint. So smooth and sharp-cut are the sides, that we can stand upon the brink, and look down into the waters. From the cars, occasional views, grand and imposing beyond description, rivet our attention. We stop a few minutes at Dutch Flat or German Level,—a pretty town of miners, whose cabins are adorned with tidy gardens and little orchards.

How differently are we crossing these mountains from the emigrants of even a few years ago! *Then*, inch by inch, the teams toiled to gain a higher foothold, or toiled equally hard to keep a foothold, as, inch by inch, they *climbed* down the rugged passes; *now* in luxurious coaches, with horses of iron, with a skilled engineer for a driver, we are carried along in comfort. Then and now! Who of us on this train can know of those toils and hardships? and who of those pioneers could have dreamed that this day the steam-engine would be crossing the Sierra Nevadas?

THE TUNNELS AND SNOW-SHEDS

continue for nigh fifty miles; the longest tunnel being sixteen hundred and fifty-nine feet, and many ranging from a hundred to eight hundred and seventy feet in length.

The snow-sheds upon this road are entirely different in their construction from those on the Union: here they are framed and erected as permanent structures, at a cost of about ten thousand dollars per mile. Knowing that the snow falls here from sixteen to twenty feet deep, and that great avalanches of snow and ice rush down from the mountains into the valley, we can understand the necessity for these structures. They are so con-

structed, either with sharp, sloping roofs, or against the side of the mountain, that the snow passes over them, while the trains, as through a long tunnel, pass in safety. Precautions are taken to prevent fires and accidents, in employing watchmen at frequent intervals, and having water and an engine always in readiness.

HYDRAULIC MINING.

All along the road now, for miles, we see the little ditches filled with running water. These narrow ditches are dug around the sides of the hills, tapping the river near its source, where perpetual snows furnish a constant supply, and are carried on and on to the various "claims" below in the valleys. These claims are located upon what is known as the Blue Lead, which extends from Gold Run, a few miles beyond, through Nevada, into and through a part of Sierra County, and constitute the best large "placer-mining" district in the State. The whole tract was, without doubt, the bed of a once large mountain-stream, which has piled up these great beds, within which are the fine particles of gold, worn away from the great quartz mountains by the action of the water upon them. Petrified trees are now found like those growing upon the hills around,—pines and oaks, the manzanita, the mahogany, and others, in

this peculiar formation, which is from one to five or six miles in width. From these ditches the water is taken in a "telegraph," which is a long, narrow flume of wood, extending out over the claim; to this telegraph, hose with nozzle is attached, from which the water flows in a constant stream, and is by the miners directed against the hillside. By this action the soft dirt is washed away from the gravel, and, forming one liquid mass, is carried through a "tail-race" into long flumes, often miles in length. Within these flumes are placed "rifles,"—little slats attached to the bottom of the flume, for "arresting" the gold, which by its own gravity seeks the bottom, and is caught by these riffles. Along the flumes, at intervals, are stationed men, who throw out the large stones and pieces of rock from which the dirt has been washed. When the riffles are supposed to be full, the water is turned off, and the dirt is taken out.

The next process is the use of the "long tom," which is a sheet-iron box with a duplicate bottom extending diagonally over a little more than half the box. This secondary iron plate is perforated with holes; and under it, in pockets made by two cross-slats upon the bottom, is placed the quicksilver. This "long tom" is now attached to a sluice-way, and the water turned through it. The dirt which has been taken from the riffles is now

shovelled upon this perforated plate ; the particles of gold fall through, and unite their atoms with the quicksilver. This process of throwing the dirt upon the plate, washing away the sand and rock by the flowing water, and the taking-up of the gold by the quicksilver, is continued until the "quicksilver is full," as they term it. Then the amalgam is removed, placed in a retort, heated to some four hundred and eighty degrees Fahrenheit ; when the quicksilver is sublimed, and passes away in a vapor, leaving the gold.

Of course such mining, while it is very expensive (vast sums having been laid out in building the ditches and flumes), still can never be an economical mode ; for, with every precaution, much of the gold is carried away. After the last riffle is passed, the mass is carried into the streams which empty into the great Sacramento, whose waters are now muddy and dirty from the vast amount of sand, clay, and loam, washed into it, as each miner, by his ceaseless labor, wears away the hills and the mountains, and carries them by his flumes into the rivers. It is a strange sight to look around and see what this constant flow of water has done in so short a time ; and then we are enabled to understand some of those great changes which Nature hath wrought by her rivers flowing on for ages and ages.

This constitutes, in general terms, what is called

“placer” or “hydraulic” mining, which is now carried on to a very much less extent than formerly, before quartz mining was begun.

This information was obtained from observation, and conversation with one of our fellow-travellers from Boston, who now returns to visit the land, which, in 1849, he explored in search of gold. Also from Dr. A—— of San Francisco we learned much of the geography, geology, climate, and flora of the section through which we have been journeying.

But we are nearing that famous “tumble” down the mountain, called “Cape Horn ;” and we must stop our talk upon mining and miners, and observe the grandeur and beauties of our ride for the next few miles, that my readers may know how to “double the horn.”

CHAPTER X.

Cape Horn.—The Stations Colfax, Auburn, and Rocklin.—The City of Sacramento.—The Western Pacific.—What is seen in a Ride from Sacramento to Oakland, opposite San Francisco.

We closed our last as we were winding around the sides of the mountain in the vicinity of that place known as

CAPE HORN.

People who are naturally timid shrink from looking out of the cars down into the deep chasm on our left, or up upon the dark, bleak mountains which all around rear their craggy, snow-capped crests far into the very clouds. Even the cunning Indian failed to make a trail directly across this hill; and to the *pale-face* was left the glory of building the first road, and of driving over that road his “iron horse.” As we round the hill, we see far, far below us, the river, which looks like a little brook, and there a little plank spanning it, which really is a large turnpike bridge. Now we turn sharply

to our right, and lose sight of the river; and as just across the chasm we see the road-bed, seemingly within a stone's-throw, we look anxiously for some way to reach the other side. As we run along the brink of the precipice, we look down a thousand feet into the valley below. Gliding slowly along, a turn to our left brings us upon a trestle eight hundred and seventy-eight feet long, and a hundred and thirteen feet high, which is to take us safely over this gorge, and upon the road-bed which we saw so near us, yet so unattainable. When this section of road was built, the Chinamen were lowered down by ropes from the mountain peaks, and in this position gradually worked themselves a foothold; the foothold enlarged to a working-place; and the working-place, after much labor, to the road-bed over which we are passing in safety. No one can view this point without being struck with the herculean labors which accomplished this result, and without rejoicing that American skill and energy directed it.

While we have been looking, admiring, and wondering, we have reached the pretty town of Colfax, named in honor of the vice-president. As this is the point for distributing freight for Grass Valley, Nevada, San Juan, Little York, You Bet, and other mining towns and camps, the company have erected large and substantial dépôts for the merchandise, which is taken by

"fast freight expresses" (four-horse wagons carrying a light load, and driven at a rapid rate by relays of horses) to all the interior points. Stage-lines also are ready to convey the passengers and mails.

Eighteen miles farther on, we stop at Auburn, the county seat of Placer County, containing a thousand people, and many neat and substantial buildings; and, although the place has no air of business, still the houses, seen from the cars, indicate home-comfort in their neat and well-kept gardens and orchards. We pass along for some dozen miles the scenes of early mining-operations, where even now some of the "old settlers" may be seen at work.

At Rocklin, built from a handsome granite found near by, and in a substantial manner, the company has a machine-shop and round-house. As we leave this place, the foot-hills of the great mountains, down whose sides we have been picking our way, are left behind us; and, although still the land is rolling, we see beyond the plains of the American River Valley. We make good time over the meadows, and cross the marsh-lands of American River upon trestle-work, and over the river itself upon a bridge of wood, and now are in the suburbs of the "Queen City of the Plain." Orchards and gardens are upon either side; flowers send us choice perfumes; the fig-tree lifts its great green leaves to the

sun; the soft, balmy air fans our cheeks,—all telling us of summer. What a change! Only a few hours ago we were up in the snows of the Sierras, so cold that we needed a fire in the cars, and our overcoats on besides; now we are in the land of flowers,—of almost tropical luxuriance.

Passing the great brick repair-shops and dépôts for supplies of the company, we are soon taken into the station, upon the banks of the Sacramento River. Until the year 1870 this was the western terminus; but the completion of the Western Pacific to San Francisco brought about the union of the two roads. The distance from here to Omaha is given at seventeen hundred and seventy and eighteen one hundredths miles; and from here to San Francisco, by way of Oakland, is a hundred and thirty-eight miles.

As we stepped from the cars upon the platform, what a scene presented itself! Here are gathered persons of every nation, speaking every tongue,—a jargon of language. Here were merchants and mechanics of this city and the country, meeting old miners from the “diggins” who had come to town for a while; the fashionable belles who were to take the cars for the city near the “Golden Gate;” young men “with no particular occupation;” old men waiting for “a chance,”—altogether the most “cosmopolitan people” I have

ever met. As the train waits thirty minutes, we pass around among the people, observe them and their ways, talk to some, ask the price of the nice fruits and flowers, and so await the time to continue our journey.

At the stations along the Central Pacific, as persons entered the train, they would inquire of those they met, "Are you bound for Frisco?" Here every one is inquiring of his friend, "Are you going to the bay?"

We see some substantial stores and blocks along the street fronting the river. The great State House, with its lofty dome, stands out from the other buildings; but, save these, we see little of the city. We shall try to give a better description of this city, once destroyed by flood, after sojourning a day or two here.

Here the "overland express" is made up, with several coaches added; and we push out of the station, and run for some distance along the river. We soon begin to see what looks strange to a Yankee; that is, the windmill pumping water into a large tank, built sometimes upon the house, upon the barn, and oftener upon stilts up in the air. Fine vineyards skirt the road; and great fields of wheat stretch away from the river. We can but be amazed at the fertility of the Sacramento Valley, which we are crossing, and which extends more than a hundred miles to the north.

But we are nearing Stockton, called "The Windmill

City." As the station is somewhat removed from the city, we can see but little of the place, the impressions of which from the dépôt are in no wise pleasing.

A stop of a few minutes, and we are away for "The Golden Gate." The next station of any importance is Lathrop, the junction of the Visalia Division, which traverses the San Joaquin Valley for many miles, and which is a favorite route for the Yo-semite.

Crossing the great bridge over the San Joaquin River, we push on through a rather uninteresting country, by several stations of no account. Occasionally we catch a view of Mt. Diabalo far away towards the Pacific, and the snow-caps of the Sierras far behind us.

Just ahead of us we see high hills, which seem to offer another barrier insurmountable; but our train winds itself along, twisting in and out between this coast-range, until it finds its way out through Livermore Pass. Rushing through a dark tunnel, we are fairly in the cañon. Although now quite dark, we can still discern the great mountains on either side, with the dashing river at our feet.

Presently the station Niles is announced, which is the junction of the San José branch. It is now too dark to see the country; and we can only wait to hear the glad sound—Oakland! But, while we were wishing, the conductor cries out "Oakland!" and many passen-

gers prepare to leave at this "Brooklyn" of the Pacific coast.

We can only reach the boat which is to carry us across the bay, by running out for some two miles upon trestle-work to the deep water; and while the train is slowly crawling over this bridge, and I am collecting my "traps" to take away from this "car-home," let me take leave of my readers, and close this chapter.

CHAPTER XI.

Arrival in San Francisco, and Impressions of the City gained the First Day.

My last letter closed with us upon the long bridge which pushes itself out from Oakland Point towards the city of San Francisco. It was not long before we rushed from the cars and upon the boat; and, going irresistibly to the bows, we peered into the fog, trying to get a glimpse of the lights across the bay. We were told that the cold wind which blew in our faces, that the fog which hung over the bay, were quite frequent in summer, usually coming up in the afternoon. This seemed to us a rather *cold* reception: but we had not much time to think about it; for the porter of the Lick House had singled us out of the great crowd, and was now welcoming us to the city, and inquiring about our baggage. But now up came our friends to whom we had written of our intended visit, and, giving us a true "California welcome," soon dispelled all our unhappiness, and made us

feel so well, that we were ready "to vote the fogs and the wind a luxury." A sail of twenty minutes landed us at the wharf at "City Front," where a carriage awaited us; and we were driven to the hotel. Here rooms, all in proper order, awaited us; for we had done what every one should do,—telegraphed the day before for accommodations.

Tired and exhausted by such continuous car-riding, we were soon sleeping away our first night upon the Pacific coast, which, together with a good breakfast, prepared us for our

FIRST DAY IN SAN FRANCISCO.

We had expected a busy, bustling city, where every one jostled against his neighbor in his hurry to and fro upon the business streets; but as we left our house, and went down Montgomery towards California Street, we were forcibly struck with the lack of all bustle and all confusion, although just the hour for beginning general business.

The brokers and bankers were just preparing their balance-sheets, and opening their day's transactions; but all wore a look of despair, as men began to assemble in little knots here and there upon "the Wall Street" of the Pacific. An inquiry disclosed the fact, that stocks had been tumbling for the past few days, and would

probably go lower to-day. On Friday of last week (May 10), stocks in all the mines had tumbled down at a rate unknown before,—in one case from nineteen hundred dollars to less than three hundred dollars,—a day to be remembered hereafter as the “black Friday.” It was only too true that stocks were to go still lower; for the first meeting of the Board saw another decline. Men who a few days ago were millionnaires were to-day made bankrupts; and it seemed to be a time when *all* were *losers*. The clouds hung dark and heavy over financial circles; and despondency and gloom filled the houses of bankers and brokers. A friend and myself made an estimate of the depreciation of the stocks upon the market up to noon that day; and our footings show it to be rising forty-seven millions of dollars.

When will people learn from the experiences of others, and stop gambling in stocks? Do not the wrecks which strew the shores of this sea of stock-buying tell plainly enough of the dangers which beset one who embarks in search of a fortune upon this angry flood. Sure as can be, sooner or later, you are engulfed in the maelstrom.

But let us turn away from such scenes, and take a walk around the city; and, of course, we soon find ourselves upon that fashionable thoroughfare, Kearney Street.

A STRANGE SIGHT.

We had not walked far before we perceived two ladies coming down the street,—the one dressed in a suit of thin lawn throughout, with hat telling of summer-time; the other dressed in a gown of dark heavy cloth, and with a long fur cloak on, and hat and costume telling of a New-England winter. Yet this pair of ladies walked down the street side by side without attracting any notice. A little observation soon told me that the ladies dressed just as their fancy and taste dictated, making, as they promenaded the streets, or filled the spacious churches, a perfect medley of colors, styles, fashions, forms, and material,—“a bouquet of feminine charms,” as one writer says; but we hold the expression “for advisement.” It does not require a very long stay here to convince one that business has been overdone, and is now toiling for a legitimate basis.

The architecture is very peculiar, ornate, and often grotesque. To accommodate them to earthquakes, the “Friscans” build their blocks and houses only two, sometimes three, and often but one story high. The prevailing material used is the redwood painted; but, when the owner can afford it, they are covered with elaborate iron and wooden ornaments, in such excess as to become ugly.

In one day little of the city can be seen; and these hasty impressions may be changed by closer observation.

The people whom one meets are extremely polite and affable, ready to show you about their city, of which they are very proud.

The weather is supposed to be a fair June day; the thermometer is about 65°, and, when out of the sun, you are a little uncomfortable; and it is so desirable to have the sun in this climate, that you see in the advertisements of houses to let, &c., that "the rooms are sunny."

We were prepared for the wind; for, after lunch, we took along our overcoat, which by three o'clock we found the most serviceable of garments. Looking over the hills to the west, you see huge banks of fog rolling in over the city; and the cold ocean-wind, surcharged with fog, rushes upon you like an evil spirit. We shivered and hurried, walked down streets lying in opposite directions, still the same spirit was upon us, until we were driven into the hotel to take refuge before a glowing coal-fire in the grate. This they tell me is a *fair sample* of their summer weather: one may get used to it, but the first experience is very unpleasant. It is utterly out of the question to sit out of doors during the evening: hardly does one want to walk or ride out, unless business or urgent social calls demand it.

A good dinner at the hotel does much to dispel the gloom which an afternoon's fog creates; and the confident assurance with which the Friscans tell you that these are their unpleasant days, and that they are very, *very* sorry you cannot stay to enjoy their pleasant season, compels one to be satisfied, and enjoy what there is of blessings before him. "Thus endeth the first lesson," as the good bishop would say; and "thus endeth the first day" of my visit to the Pacific coast. But as the city faces the bay, being built upon a narrow peninsula, with old ocean at her back, reached only through the "Golden Gate," we have not yet seen the "other ocean," as the early navigators of the Atlantic used to speak of this; but it is proposed that to-morrow we shall drive to the Cliff House, view old ocean, and enjoy the pranks of the seals.

CHAPTER XII.

The Cliff House and the Road. — Seal Rock and the Lions. — The View from the Piazza of the Cliff House. — Sunday in San Francisco, and how it is observed. — Dedication of Dr. Stone's New Church.

No one has seen this city, at least in the estimation of Friscans, until he has been to the Cliff House. No matter how cold are the blasts which blow in from the Pacific, no matter how fearful are the showers of sand, or even how angry look the skies, the Cliff must be seen ; and a drive over the Cliff-house Road is indispensable to a proper reception into this wonderful town. Indeed, so pre-eminently necessary is this ride, that, at breakfast upon my first morning in the city, I was asked, “Have you been out to the Cliff ?” Appreciating all this, we prepared for the drive the second day after our arrival ; and so after lunch we were off.

A drive of a little more than a mile through the city was a martyrdom we little liked. The fine sand from the hills about fills the air, and, borne upon the *Pacific*

blasts, cuts one's face until he cries for quarter. These sand-hills were blown up from the ocean-beach; and their position seems to be constantly changing. The streets often run through these sand-banks; and, if you plough through one, you then can understand what a sandy road is indeed. The old Pawtuxet of boyhood memory is outdone; the road through Warwick to Apponaug in its palmiest days was a smooth asphalt way compared to these streets of sand.

In other places, where the streets have been graded and macadamized, the sand comes in, and repossesses itself of its old quarters, covering sidewalk and carriage-way, door-stoop and front-gardens.

By dint of courage and perseverance, we succeeded in getting beyond the city street proper, and upon the famous road. As there were races at one of the agricultural parks, the road was unusually lively and gay; and we had the pleasure of seeing the "fast nags."

The road is nigh three miles long, and has a hard, smooth carriage-way, in width some sixty feet, and a trotting track-way of some forty feet; and the whole is kept in most perfect order from the funds received at the gate, the toll being four bits * each carriage. As a road, it is of great merit. The drive is entirely with-

* A bit is an old silver ninepence; and so the toll is a silver half-dollar each carriage.

out interest, unless it be to watch the varied surface of the great sand-banks made by the wind, or look over a field and observe the ripples and the changing colors. Just as you approach the hotel, the road takes a sharp grade down towards the beach, and, by a very nicely curved way, you are let down to the level of the Cliff-house piazza ; and a short distance more brings you down upon the sandy beach.

The Cliff House is a wooden structure built out over the rocks, and has evidently been enlarged as business increased, and is neither pretty in its architecture, nor inviting in its appearance ; but inside the house creature comforts are dispensed with lavish hand.

Standing upon the veranda looking out to the ocean, you have, a little to your left, the great Seal Rock, whereon disport the great sea-lions, and in their antics—now crawling up the rocks, their sides dripping with the foam ; now stretching themselves out in the sun ; and now rubbing their sides with their great fins, which serve them as paddles, hands, and feet ; or now again lashing the rocks with their tails, all the time growling, or rather howling — offer great amusements to the people who throng this popular resort.

Among the lions which have grown old and *ill looking* in the service of entertaining the populace of this fun-loving city with its strange freaks and pranks, and

whose eyes now squint from over-feeding, and who seems to rule the rock with the greatest bravado, is one called "old Ben Butler." For the peace and good of the other lions, may "old Ben" soon take his last leap into the sea!

To our left is Gull Rock ; and farther around are the Headlands, and the Gate called *golden*, through which all the commerce of this port must enter, and through which our ships seek a path to China and Japan. The hills, where they are of rock, rise majestically from the sea ; and with the air clear of fog, and at setting sun, a beautiful picture must be here, and this narrow roadstead must have been rightly named "The Golden Gate."

For miles you can ride along as pretty and *sandy* a beach as you could desire. The ocean dashing at your feet, or surging against the projecting rocks, tells us of our "other ocean," — the blue Atlantic. Navigators called this the "Pacific," because its waters were so calm ; but they only knew of its southern character. Then they had not been far enough north to determine whether California was an island or the mainland ; and, indeed, upon the early maps which we have seen, it is laid out as an island. If you desire to try its "pacific waters," we are told that a voyage north, to Portland, Oregon, or to Alaska, will settle the question ; and you will only hope that Shelvocke and Drake, and their

compeers, had sailed farther north before they named this great ocean. Its waters are evidently not as blue as our ocean, neither are they as clear; but this last, undoubtedly, is caused, to a considerable extent, by the mining, which sends down into the bay so much soil and decomposed rock.

Around the Cliff House are "other houses" which once sought to be Cliff Houses, but whose pretensions have been entirely dampened by the gold which it is said the coffers of the old "house" contain: so now these stand around, deserted monuments of what a number of Cliff Houses there might have been, had it not, as in every thing else in this State, been a monopoly.

A delightful drive took us back over the road, and through some of the best-built streets of the city, to our hotel, as thoroughly initiated into the mysteries of the Cliff House, and the famous road leading to it, as is a hazed freshman into the great mysteries of college life.

Let not any thing here written deter you from taking this famous drive, lunching at the Cliff House, and taking a sight of "Old Ben Butler," should he still live to torment his enemies, and disgust his friends, when you visit the Golden State.

SUNDAY IN SAN FRANCISCO.

We were awakened with the sounds of martial music, and the tramp of soldiery. For a time we thought it was the Fourth of July. From the hotel-window we saw no less than three military companies, each with a band, marching on their way to some picnic. The sidewalks were filled by eight o'clock, with men with wives and children, oftener, perhaps, with their sweethearts, hurrying to the boats, the cars, the "busses," and every sort of a conveyance which would take them to some "place of resort," or into the adjoining country. The horse-cars were all placarded with great shows and performances at Woodward's and the City Gardens. There were to be extra attractions at the theatre and circus, and at the gardens: so all must go for one day of rest. We confess ourselves a little bewildered at the sights, but were told that Sunday was the great holiday for the people,—perhaps to-day a little more parade; but still every pleasant Sunday takes the people into the country, to the villages and islands in the bay, or to that great of all great places,—Woodward's Garden; for without Woodward, whom Providence long ago sent to the "golden shores" of the Pacific, where could California find her "Barnum" of to-day? and how, in

years gone by, would *visitors* from the mining camps have been entertained in the city, had it not been for the What Cheer House?

After breakfast we bethought ourselves to go over to Oakland to church ; but we found the boat in complete possession of a German Turner Society and their *numerous* friends : so we were forced back to spend a quiet morning, contemplating the strange sights which we had seen, and comparing them with the manner in which we passed our Sundays in New England. Did we not know it, we should have said certainly we were back again in Paris, where Sunday is made the great gala-day.

In the afternoon, we had arranged to accompany friends to the dedication of the new church-edifice, of which Dr. Stone is pastor.

Architecturally this house is probably the finest in the city, and is situated on Post Street. The cost for lot and building was rising a hundred thousand dollars. The congregation was very large ; and the peculiar diversity of style in the hats and dress of the ladies made them look like “a huge nosegay,” as one of our friends described it. The sermon of the doctor was not as brilliant as we had heard from him ; but still the services passed off to the entire satisfaction of all present. Dr. Stone is very popular with the people of the city, irrespective of denominational differences ; and his teach-

ings and good works have an influence which is far-reaching.

Thus our Sunday was passed; and we shall to-morrow begin a week of observation, out of which we trust that something can be gleaned for our readers.

CHAPTER XIII.

Impressions after a Week in San Francisco.—What is seen from Oakland Wharf.—The Streets of the City.—The Peculiar Architecture.—The Churches.—A Tribute to the Memory of Starr King.

THE week which I have now spent in San Francisco has given me opportunities for making a judgment of her outward life and her material development; and I will try to give my readers views which have been formed with deliberation.

As is well known, San Francisco is greatly exercised of late about the occupation of Goat Island, and the building of a rival city on the Oakland side of the bay; and I must say, that, to one unacquainted with the early history of the city, the site where Oakland is built seems the place for the great city of the Pacific.

The deeper water-front of the early days determined the commercial superiority of the site selected, aided, and perhaps assured, by the Spanish mission-church and fortifications, then already established. The city now

has moved away from the deep-water-front, and is finding its commercial marts far to the south, where they must fill out into the bay for the wharves.

As I stood upon Oakland Wharf, looking across to the city, considering the situation, and its future growth, the lines of Tennyson came in mind :—

“I waited for the train at Coventry ;
I hung, with grooms and porters, on the bridge,
To watch the three tall spires ; and then I shaped
The city’s ancient legend into this.”

From this point, looking west, you have, just by that huge rock which rises from the water about a mile from the end of the bridge, called Goat Island, and which has given so much trouble, the roadstead which leads out into the Pacific, through the Golden Gate. To the left rises Telegraph Hill, whereon, in early days, the beacon-light was placed, and at the foot of which the early miners pitched their tents, and began their city. For many years the business-portion of the city lay at the very base of this hill, with the tents and cabins of the new-comers far up its sides. It seemed to me, now, that I could see the scattered tents of the primitive town, and the good ship “Niantic,” in charge of Capt. Brewer of Boston, gracefully sailing up the bay, to become the first hotel of the city. I saw the little settlement in-

crease from hamlet to town, and from town to city. I saw her people gathered in the plaza, witnessing the fights of the bull and the bear. I saw ships flying the flags of every nation coming to the new-found harbor, bearing the living freights, and carrying away the golden treasure.

Now the city has stretched far away to the south,—as far as Mission Bay, and to the west two miles, and more, towards the ocean. The place where “The Niantic” used to lie is now covered by a large brown-stone block of stores; and to the east, for nearly a mile, the bay has been filled in to find deep water, and the whole space covered with large, and, in many instances, substantial storehouses. Around Telegraph Hill decay has attacked both the buildings and the dwellers therein: the stores have been emptied of their merchandise; and but little now remains to tell of the bustle and noise of the early settlement. The plaza has been enclosed by a neat iron fence, and beautified with trees and shrubs, to remain forever a park, to which the old inhabitants love to come and think over the scenes of early days. As you look upon the city, you see the shipping, with flying banners, at the wharves, and the war-vessels (always some) riding at anchor, gayly decked in bunting, then the long lines of storehouses which cover the low land west to Montgomery; there the Mansard roofs of

Montgomery and Kearney Streets, and above them the clock-tower on the Chamber of Commerce, on California Street, all come in view. Rising above the city is the bald and bare form of Telegraph Hill, and to the south the house-capped sides of Russian Hill. Farther to the south is Lone Mountain, where they are laying out a beautiful cemetery; and then the land stretches away in a gentle slope to Mission Bay, with the foothills separating the ocean from the bay to the west. To the extreme south are the China docks; and away down the bay is seen the dry dock and South San Francisco. From the city, the open sea is not visible, as it is situated upon the southernmost of two ridges, or arms, which jut out towards each other, leaving only a narrow pass between them, which makes the Golden Gate, which fronts towards the bay. To the west of all rise the great sandhills, over which we must pass to reach the ocean. In the summer months, generally, a fog-bank, after ten o'clock in the morning, hangs over the western part of the town, ready to be taken over and upon the whole city by the trade-winds, which prevail at this season of the year.

Montgomery Street, running from Telegraph Hill south to Market, is the principal street; while Kearney, the next street west, and parallel with it, is attracting the shopkeepers, whose trade is with the ladies. New

Montgomery, which was to be an extension of the old street by that name, and upon which one front of the Grand Hotel is erected, was an unfortunate enterprise for its projectors, many of whom have been ruined, — a good example for those who, either as city officials or private individuals, attempt to change the location of trade by cutting through at great expense and more inconvenience new streets: in one case the individual may escape personal ruin, but the tax-payers suffer. Does not Boston and Providence furnish such examples?

The streets in the business portions of the city are of wooden pavement; those in the sparsely settled portion are macadamized. There are too many of the plank-road style, which is the way in which the side streets are laid. The sidewalks are nearly all of plank, save upon the principal business streets, where all kinds of walks are used. Many of the streets are so very steep, that it is with difficulty that one can drive up or down them; Clay Street being a pretty good test even for pedestrians.

The horse-cars are compelled to make long *détours* around the hills; and, even then, often four horses are required to draw a car up the grade.

THE BUILDINGS.

We cannot speak very highly of the architecture of the city. Around the old adobe church of the Mission Dolores are many of the old clay houses still remaining, which bear the marks of a century. The dwellings are neither elegant nor comfortable, as a rule,—generally small, one-story, three-roomed houses. Recently some quite fine private houses have been erected; but all seem so unhomelike, and so destitute of all grace and beauty! The public buildings are so out of proportion, that they are deprived of all architectural claims. House-builders seem to have accepted the situation,—that every October the earth *will* quake, and that masonry *will* crack, and ceilings and chimneys *will* fall: hence they have sacrificed taste to a style which they call “earthquake proof.” The great hotels—the Lick and the Grand—present long and somewhat imposing *facades*: the Occidental has the most harmonious front, but is considered too high “for that peculiar institution,” an earthquake. The newer buildings are of wood; and all are covered with ornaments, to such an extent that they become often very repulsive. The structure which the Bank of California has erected for its offices, although neither large nor pretentious, is, to our eye, the best specimen of graceful and classical

architecture. Neither the Treasury Building nor the new City Hall are far enough advanced to decide their merits.

THE CHURCHES

are not, as a class, at all creditable. Several new ones, among them Dr. Stone's, are fair in their proportions ; but there is in them all a lack of harmonious blending of materials used, and in the adjustments of the lines of gables, windows, doors, &c. The Episcopal church is almost ugly in its appearance ; Calvary is better, but has the look of an opera-house. The church which the lamented Starr King designed, and in which his society still worship, has a pleasing and harmonious front,—in the “lighter Gothic of the seventeenth century,” and in its interior designs and arrangements shows the cultivated taste, as well as the wisdom, of its architect.

Just outside the church, within the little yard, separated from the street by an iron fence, and beneath the shade of a Monterey cypress, is the sarcophagus which holds the cherished dust of Starr King. New England gave of her best when she sent this “eloquent divine,” in the trying hours of need, to the Pacific ; and who infused his own life and teachings into a people who now speak his name in honor, and revere his memory,

telling their children of him whom they loved so well. Was not New England amply repaid for her loss in beholding *her* influence and *her* principles ripen into such a glorious fruition, that the “old flag” received no harm from this far-off sister, who had been so long separated from the rest of the band, that she had nearly forgotten her “nourishing mother”? This done, his mission seemed ended. The memory of his life and his recorded utterances remain a perpetual legacy; and every son of New England, as he visits the grave of the noble King, cannot repress a tear in remembrance of him who was so noble a son of the land of the Pilgrims.

In my next I will tell of the gardens and their flowers, and of the schools, and, before I leave San Francisco, something of the Chinese.

CHAPTER XIV.

The Gardens of San Francisco.—The Plants and Trees.—The Schools.—The Manufacturing Interests.—Banks and Currency.—Horse-Cars.—The Chinese.—Their Life.—Their Theatre.—Their Religion.

In riding round the city of San Francisco, one is amazed with the gardens, and the plants which grow in them. Hedges made with the fish geranium; fuchsias trained against the house, reaching above the windows, or in a tree, with stem four inches in diameter; the century-plant in full bloom; the tea roses, pelargoniums, and the choicest pinks, all growing out of doors without protection,—is a sight never witnessed in New England. There is a lack of shade-trees along the streets; but in the gardens we saw the pepper-tree, with its delicately-fashioned leaves; the cypress, with its feathery foliage; the eucalyptus, from Australia, which grows so fast, and is said to rival in size the sequoia; the fig; the several varieties of palm; and choice evergreens, the arborvitæ, the cedars, and many other trees, all growing in luxuri-

ance. As there are no grasses indigenous to this section, much difficulty has been found in making lawns; but some of the southern grasses, like Kentucky red-top, the Timothy, together with the white clover, have been made to grow upon prepared soil, with constant irrigation ; for even here a windmill is almost as common, and equally as useful, as in Stockton. The lawns, however, are not like those at Newport, which to me seem as fine as any in England, truly always fresher. As you look at these plants and trees, growing the year round, it seems that they must be tired, and need a Northern winter to sleep away a part of the year.

THE SCHOOLS

we found much better than we expected; and, by the kindness of the superintendent, we were enabled to visit several of them. The scholars are much farther advanced at the same age than with us; and they excel in the languages. We found children ten to twelve speaking quite fluently French and German, and those, too, who hear only English at home. They show great talent for the dramatic; and, in the rendering of selections from the authors, they not only spoke well, but acted well, and brought into play accessories in costume and furniture in a manner creditable to an eastern Amateur Dramatic

Society. Music is given too much prominence, we mean instrumental; and, in some of the more *solid branches*, the schools are not up to ours: but they are creditable to the city, whose people are wise in fostering and advancing the interests of popular education. Our visits to the schools were full of interest and instruction.

MANUFACTURING INTERESTS.

There is in the city but very little manufacturing of any kind. The Mission Woollen Mills are now, by the union of the Pacific with this company, and using Chinese labor, enabled to keep their machinery running. The market being so limited, they are forced to produce a great variety of fabrics, among which the "Mission blanket" is justly celebrated the world over. Some few shoe-factories are carried on with Chinese labor; but, aside from these, but little is done: and Chicago—now so near, since the railroad was completed—is made to supply what the city ought to produce within itself. The click of machinery, the hum of the loom, and the puff of the steam-engine, all are lacking, which make New-England cities so full of life, and which tell that within our workshops are being fashioned the most curiously-formed products, both useful and ornamental, which other States will need in exchange for the farmer's grains and cattle.

THE BANKS AND CURRENCY.

As is well known, California, unwisely as it seems to us and now to very many of her people, refused a paper currency, and has to this day used only gold and silver. That they are now learning that a paper note, when duly honored, is more convenient for use than coin, is at last acknowledged by the bankers and merchants in the demand for a national gold bank, which has recently been established, and whose issues, in lieu of coin, are eagerly sought for by the people. The smallest piece of money used, after the early custom of using gold-dust ceased, was an old ninepence (twelve and one-half cents), which was always called a "bit." A quarter of a dollar was a "two-bit piece," a half-dollar a "four-bit piece," &c. Now that this coin has departed, and the nomenclature as well as practice remains, a great difficulty is experienced. If you buy any thing for a "bit," and hand a quarter in payment, they return you ten cents in change, which would be, as they would say, taking the "long bit;" the "short bit" being a dime. A person who tenders a dime for a "bit" is stamped as a mean man, and is avoided: so what is demanded is, that you should try to pay about equally *long* and *short*. No nickels are seen, and very few silver fives. The leading bankers, I think, are now

satisfied that it would have been better to have adopted our common currency; and, if this State had, long ago the difference between gold and greenbacks would have been eliminated by the general confidence in our paper. I discover two reasons which determined the course: first, as the people had always been accustomed to gold coin, never having used paper currency, it was a difficult matter to effect a change; and, secondly, it must be said, although I regret it, that there was a large and very influential minority who were favorable to the South; and, although there was always a majority of loyal people, still the influence of this minority gave a tone to all political acts and measures. The Bank of California is the leading financial institution, and wields an immense influence, and is presided over by Mills and Ralston so ably, that it has the confidence of the entire financial world.

HORSE-CARS.

The manner of getting around the city in the cars,—

“For ways that are dark,
And for tricks that are vain,
. . . . are peculiar.”

The cars are of all sorts and sizes,—two-horse cars, four-horse cars, and down to a one-horse car; and the

prices for riding in these conveyances vary, like the cars, from three cents up to seven cents. As they have no change, you are forced to take tickets, or pay a dime for a ride. The consequence is, that, after you have been in "Frisco" a few days, you have a collection of car-tickets, which, for variety in shape, color, and printing, cannot be surpassed. The roads do not generally exchange; but the three-cent line takes a seven-cent ticket of any other company. How the people submit to such inconvenience one cannot tell; but I suppose a horse-railroad company is substantially of the same *genus* in "Frisco" that it is in — say Boston.

And now a few words upon that greatest of all the institutions on the Pacific, the

CHINESE.

If ever there was a study which repaid one, it is to learn of this curious people, who, transplanted from their "native heath," are trying in this foreign land to preserve the customs of their country. Meeting with many difficulties, suffering much, working hard, they still succeed in maintaining their own Josh House, their own theatre, and in not at all mixing with the white race.

There are, at present, rising twelve thousand in the

city; for although there are large monthly arrivals, still the demand for their labor in the country keeps the average very nearly the figures stated. They swarm in the section around Sacramento Street, and are scattered throughout the city.

For the most part, they are sober, kind, and submissive, and in certain places they are exceedingly valuable as servants. It is the custom here to have a Chinaman as chambermaid; and your cook is a "John," who—arrayed in neat blue tunic, with pigtail, black and neatly braided, reaching to the heel of his thick, cork-soled slippers, and whose big trousers at least *hide* ungraceful legs—goes about his work without bluster, and sends to your table dishes exquisitely prepared. Your dinner is served by a "little John," in tunic as white as snow; and your garden is weeded by another, in a hat so large, that, looking down upon it, you see no "John," or any thing else save bamboo braided into a peculiar shape.

The Chinese have monopolized the laundry business; and in this they excel. You see around the city little signs over little doors in little buildings, upon which is printed High Lung, washing and ironing; Hup Lee, Quon Lee, Hi Boo, or Le Chung, either one of whom will come for your linen, and return it in a short time nicely prepared, and at very low prices.

Chinese servants quit without notice, or without giving any reason for so doing; but, aside from this, a large majority of them are faithful at their work, easy to learn, and exceedingly neat.

They are addicted to gambling; but theirs is the only fair game that I ever knew to be practised for this purpose. It is simply this: A grave-looking Chinaman sits at the head of a long table, before him a large heap of *checks*, or *chips*, round, with a hole in the centre: a handful of these is taken up, and laid away nearer the centre of the table. Upon the left of the umpire sits the banker, who now wagers something from his bank,—seldom over fifty cents,—that there are either an odd or an even number in the heap. Some one of the crowd now wagers as much money as the banker against him. If any other one bets, then the banker must advance the same amount; the money being laid upon a little board marked off into squares. The customers use representatives of money; while the banker lays down the coin. If a party loses, he settles up for his checks. When all are done, the umpire, with ivory stick slowly draws the checks one by one from the pile, and places them in *twos* back in the large pile. The experienced eye of the Chinaman, long before they are all drawn away, will detect whether the number is odd

or even, and so whether he has won or lost. This causes a general talk in a most animated manner.

The banker would seem to have no advantage, save a small fee which is charged for the privileges of the house; and, if people *must* gamble, the plan of the Chinaman is highly recommended. It is by far fairer than the modes adopted and practised in that great *den* at Saratoga owned and run by ex-Congressman Morrissey, or at any other gambling-saloon, if I am rightly informed by "those who have been there." Bret Harte's Chinaman had evidently learned all his tricks from some old Californian, who, about ready "to pass in his checks," was willing to tell others "how it was done."

Many of them are intelligent, and come from home with a knowledge of simple English words: all of them know how to read in their native tongue, to count, and to keep accounts. I made the acquaintance of many Chinese gentlemen, not only of intelligence, but of culture, and whose friendship I prize.

They live very frugally; rice and pork forming their chief food, with chickens, of which they are passionately fond, when they can get them; and often their last "bit" goes for a *bit* of chicken. Tea is their favorite drink.

We lunched one day at the *fashionable* Chinese restaurant, and, for the first time in our life, knew what a

good cup of tea was. We could not use the chop-sticks, so we could not eat rice; but we took from the tray, filled with nice-looking viands, which is always brought, some very delicate cake with almonds in it. This was the place where the wealthy Chinamen lived; but in the other restaurants the food seemed to be good: but of course, as in all such communities, there were places where you would not believe one could taste what was called food. At night they huddle together in the smallest space.

They keep innumerable little shops. The doctor has his filled with all sorts of barks, leaves, and berries; the tea-man has his teas; the grocer has his supply of china-packed goods, including jars of the choicest ginger; the butcher has his stall full of the most curiously cut bits of pork, often smoked black, chicken, and fish; the clothier has his tunics, trousers, hats, caps, and slippers. The great tea-merchants have simply an office, as they deal only in large quantities direct from China. There is among them an artist, who paints in oil, or photographs with Chinese accessories, doing creditable work. Their theatre is a favorite place of amusement; and the piece which is now on was begun at the opening of the house, years ago, and will occupy many years more to complete it: hence the necessity of going often to keep up an interest in the play.

Their Joss-houses are attended upon *fête* days of their church. Here they have their hideous images of the good, the evil, the pretty princess, the man cast out of heaven, the great prince, &c., before all of whom the sandal-wood taper is kept burning, and dishes of food in great abundance are placed for the gods to eat. Adornments of odd designs cover the sides and ceilings of the rooms; and a great bell, which is beaten at times of worship, stands near the door. These temples are presided over by a soothsayer, who sits in his little office, and writes almost continuously, as if he had a great book to complete; and, as he writes, he mutters the words of the legend.

The whole of the Chinese religion is simply this, stripped of its forms of development: They believe that there are two spirits,—the good and the evil. The good cannot do harm in any way; as it is good, it can do only good: but the evil, while it cannot do good, *may* not do bad; so they try to appease the evil spirit, that it may not exercise its terrible power. This they do chiefly by keeping *him* well fed, and by following certain rules of life, which traditions from the old philosophers have taught them to be the proper way to live, that after death, if the evil spirit does not come, they shall dwell in peace and happiness. But in heaven, constant care must be taken lest they may be cast out, like

the man whose image is always set up in their Joss-house as a warning. There is a deep philosophy in their religion, which Confucius gave them, and which, with the lapse of time, they have not lost. The Chinese are honest,—a trait which seems to be a part of their natures; and a close study of them for five weeks leads me to hope that we shall soon have them in the East, not to come into opposition to any form or kind of labor, to injure any class, but to take their places side by side with all, and do their share of the labor, which is far more rapidly increasing than are the hands to do it. As soon as the present laboring-classes of the East understand them, they will cease their opposition, and allow them to take such places as they are fitted for.

When I speak of the grape-growing interests of California, it will be seen how advantageous they have been, saving from utter ruin an enterprise of which now the whole country is proud, and continuing it in prosperity where no other people could or would work.

So my voice is for the Chinaman, praising his virtues, and dealing leniently with his many faults.

CHAPTER XV.

The Hotels.—The People and Home.—The Amusements.—Free Lunches.—The Libraries.—The Pioneers.—The Bohemian Club.—Art and the Artists.—Goat Island, and what Gov. Stanford says.—The Future of San Francisco.

BEFORE closing what I have to say about San Francisco, mention ought to be made of the hotels. No city is better supplied. The four large houses—Grand, Lick, Occidental, and Cosmopolitan—offer pleasant homes. As the Grand is new, it is filled with tourists; the widespread reputation of the Occidental brings all the business-men to its halls; while the Lick is a great family boarding-house, whose magnificent dining-room used to be thronged with the *élite* of the city. Hotel life is not as general as it was formerly; and, the supply being greater than the demand, hotel property is at a sad discount just now.

It is often stated that you can live cheaper in this city than elsewhere; but, with equal accommodations, I can live as cheaply at the Hoffman in New York as at

either of the first-class houses here : and the Hoffman is the *ne plus ultra* of American hotels.

THE PEOPLE.

You meet so many Eastern men, indeed, so many whom you have known before, that you feel quite at home. We expected to stay in this far-off city like a stranger in a foreign land, making it only the base from which to start upon excursions throughout the country and adjoining States. But the people of San Francisco, proud of their city and State, did all in their power to make my sojourn pleasant: and how well they succeeded, let a prolonged stay of seven weeks attest. To all whom we met, the thought was dear, that some day they were going back home to the rugged scenes of New England, the great farmhouse of Pennsylvania, or to the land through which flows the noble Hudson with its villa-crowned banks. The father, the mother, and children, all talked of home, questioning you closely, even though twenty years had passed since the father, with mother and little ones, made the weary journey across the desert, over the mountains and plains, in the slow ox-team. They are, as a class of people, very hospitable and free, live easily, and spend their money without stint. Such a people demand places of resort; and

they have them in this city in every form,—gardens, theatres, circuses, saloons, skating-rinks where a polished floor takes the place of ice, and restaurants where choice viands are set before you.

Liquor-drinking is here perfectly open and free; and the bars are fitted up in the most elaborate and costly manner, with choice woods worked into the most artistic panels and mouldings, with mirrors of costly plate, and with all the appurtenances of the bar of pure silver. There are at all the bars, during certain hours, free lunches; and in some places on and near California Street, you can, by purchasing a glass of wine for two bits (twenty-five cents), obtain an elaborate dinner. It seemed a contradiction that a man could make profits and carry on such an establishment; yet they succeed, and are making fortunes for their proprietors. During the whole day, drinks are dispensed; but the price is always the same,—twenty-five cents. There are other places where a dime is charged, and where the lunch is less elaborate. All are carried on in the most orderly manner, and not a noisy or drunken man is to be seen. Let one live a while here, and observe this peculiar development in society, and he is forced to the opinion, that one way to stop the excessive and intemperate use of liquor is to make its sale and use as open as possible.

In the East we drink behind curtains and screens;

here in a room carpeted with Brussels, and furnished with velvet-cushioned chairs, and open to the street by plate-glass windows and doors. During my whole sojourn here, only a few intoxicated persons have been seen. These facts are stated, not to favor the use of liquor, but that some lessons may be drawn that will aid in the suppression of an evil which is so cursing the country.

The city is too young to have many libraries, picture-galleries, or museums.

The Mercantile Library and the Mechanics Institute are both creditable, and, in the freedom with which they distribute their books among the members, show that they believe libraries to be for use, not for mere ornament to some frescoed room.

THE PIONEERS

is a society composed of all those who landed in California prior to the first day of January, 1850. It has a fine hall, offices, reading-rooms, library, &c., in a building owned by them on Montgomery Street. Here are preserved the trophies of the early days of California; the old "bear-flags" adorn the walls; and in these rooms are nightly gathered those whose names and deeds are so closely connected with the founding and

early history of the State. It was to us a rare treat to visit the rooms of this society, whose hospitalities we received through W. K. Van Alen, Esq., and there meet the very men of whom we had read, hear from their own lips of the struggles and hardships which surrounded the birth of the State, and those still harder struggles which freed the country of the desperadoes and ruffians who so long infested the Pacific Coast.

THE BOHEMIAN CLUB

is composed of the artists and *literati* of the city; and their kindness in giving me the freedom of their elegantly-furnished room added much to complete the entire comfort and happiness of my visit. Here every afternoon, after business, and during the evening, are gathered in these cosey parlors genial spirits; and the hours glide away so pleasantly, that all cares are forgotten, and upon the faces of all hang

“Wreathèd smiles,
Such as Hebe brings.”

Here we met M. Pavy, the distinguished Frenchman, who is fitting out an expedition to the north pole, and from him gathered some facts upon his proceeding in

his explorations. As a memento of our interview is written in my journal the following :—

“ Bon souvenir de mon voyage à San Francisco.

“ OCTAVE PAVY.

“ JUIN, 1872.”

Who can fail to be happy with the Bohemians? May success and prosperity attend the club! for, without it, a visit to this city would be robbed of much of its interest to me. They seem to carry into practice the German proverb, “ He who creates a laugh creates forgetfulness; and he who creates forgetfulness distributes oblivion.”

ART AND THE ARTISTS.

We had the great pleasure of attending, on the evening of June 18, the first reception of the Art Association. In well-appointed rooms on Pine Street, which the association have fitted up for a permanent gallery, were gathered the artists and their friends, a brilliant assembly, to view the pictures, and pass a very enjoyable evening. The pictures were not numerous, and many seemed to us very badly hung: still, for the first reception in a new city, and so far from the great art centres, it was very creditable.

Bierstadt, who resides at San Raphael, a few miles

from the city, is represented by "Mt. Hood" and "Cathedral Rocks" in the Yosemite. His "Mt. Hood" is a grand picture, and full of those pleasing "bits of painting" which he can so well put upon canvas,—as in this, the herd of deer browsing and feeding upon the margin of the quiet lake.

Thomas Hill, who is for the present here, sends "A View from Point Lobos," in which you see the great waves of the Pacific dashing against the cragged rocks and among the deep caverns of the shore. The picture is truthful in showing the brown look of the cliffs, and the dreamy atmosphere which alway surrounds them. Kidd, formerly of Albany, but now located here, gave us two very pleasing pictures, of which the one, "A Dead Mule on the Prairie," was, in drawing and details, a capital picture. This artist paints his animals with the greatest truthfulness, but fails in landscape effect. Brooks sent two exquisitely-painted salmon, and several still-life pieces. For us, in most of his pictures, he spoils the effect of his fish or game by too much elaboration in the surroundings. A fish never looks better than when first drawn from the water, and lying upon the rocks or in the grass: by the time it reaches the place of fine tables and draperies, most of its character is gone. Loomis placed upon the walls a landscape, which, though it failed to attract much attention, still

was as choice coloring as any of those exhibited. A picture by this artist in another place, and some pencil-drawings, gave us much satisfaction. If we mistake not, Mr. Loomis has charge of the drawing in some of the public schools. Irwin presented a portrait of the poet Miller; and Champlon several; while Tojetti sent but one. These, with a large number of old master-pictures, said to be originals, but which we would stamp, without hesitation, as copies, and from the collection of the late Mr. Pioche, together with a few pieces of sculpture, formed the chief art attractions. The room was tastefully decorated by the lady-members; the singing was *called good*; and we passed a very enjoyable time.

GOAT ISLAND.

Undoubtedly you have known something of the great excitement which has stirred this city, caused by "The Goat Island scheme," as it is termed, and the question of ceding Mission Bay to the Central Pacific Railroad Company. Rather than take any thing at second hand I had an interview personally with Gov. Stanford, and took occasion to discuss this matter. The city, as I understand (it being almost impossible to find any two who alike state their grievances), feel alarmed, that, if Congress should grant the railroad company even the

use of Goat Island, it would be immediately levelled down, and a city, as a rival to this, be built there, and at its wharves all the freights over the railroad would be transshipped; that the China steamers would make their terminus there,—all having a tendency to lessen San Francisco as a commercial city. The completion of the railroad has injured the business of the city, and hence lowered the value of real estate, by bringing New York within seven days of here. The buyers, instead of being forced to San Francisco markets, now find their way to the great metropolis. This feeling of depression only makes the people the more sensitive to any thing which *may* injure their city. They have a committee of one hundred, with chairman and secretary: but such bodies generally are impotent for good; and in this case, if there are any real grounds for danger, the people had better not trust their future to such a committee. The Mission Bay matter is this: The city gave to the company the land of this bay to be filled in out to a deep-water-front, to the extent of some sixty acres; through this tract streets and avenues had been surveyed and platted. The company asked the board of supervisors to pass an order giving them those streets and alleys. As worded, it was rather indefinite; and the people think, that, under this cover, they are endeavoring to obtain a perpetual grant of this bay and India

and China basins, freed from all streets. So much for the city's side of this fight, the magnitude and bitterness of which can hardly be conceived by one who has not been in the city. Gov. Stanford says, "The bill now pending before Congress asks that Goat Island be appraised, and rented to our company; the government to reserve the right to repossess themselves at any time.

"The fight has arisen more between the land speculators at Ravenswood on one side, and Saucelito on the other; and the city between is made the apparent antagonist of the company. By a new road we can reach Oakland in about eighty-seven miles from Sacramento; the road now through Livermore Pass being a hundred and thirty-seven miles. For this reason, we want Goat Island, that we may level down its outer edges, and erect storehouses thereon. It will bring us a mile nearer our business in the city,—Mission Bay. From here to our business, we should be obliged to use a ferry, as we do now to Oakland Point.

"Goat Island is a barren rock three hundred and eighty feet high, situated in the bay about four miles from the Oakland shore, and its nearest point only five-eighths of a mile from the present wharf from which the ferry starts.

"We intend to approach the city of San Francisco by three main lines,—one from Humboldt, Oregon, and all

west of Sacramento, centering at Saucelito, and thence by ferry to the city; all east of Sacramento and the great valley of the San Joaquin, to Oakland as now; the southern roads, including the Southern Pacific lines, by rail direct to the city by way of San José. As a general principle, business must reach the city by the shortest and most direct route, and by the easiest grades.

"It is folly for the people to say that we intend to level Goat Island, and build a city there. It would not pay us to do it: our business is in San Francisco. We have already real estate and improvements there valued at more than four millions and a half of dollars, and this city is our terminus; and there never has been any intention of making any other place or places the real terminus of our roads. This whole panic, which has so disturbed the people, is a foolish, unnecessary, and wicked plot; and those who are aiding this excitement, which is so injurious to the trade and prospects of the city, are criminally to blame. I have faith in San Francisco and her people: I shall oppose them only so far as self-protection of our road is required, believing, that, in time, they will see the right, and understand the motives which have actuated me, and the officers of the company, in the course which we have pursued."

Thus rests the quarrel, so injurious to both city and company; and while it lasts the people must suffer in the stagnation of trade and all business enterprises.

THE FUTURE OF THE CITY.

Although I find that the dreams of the people of the effect of the railroad across the continent have not been realized, although all business is stagnated, lands less valuable than before, business-property sadly depreciated, and a people in their business disheartened, still I believe that San Francisco is destined, by a slower but steadier growth, to march on to a grander national importance. The great valleys will send to her storehouses their unmeasured yield of wheat; energy, and better knowledge of the manner of working the mines, will force the mountains to yield up their treasure; the wine-growing interest will add to its wealth; the south will contribute its varied fruits and nuts; ships from China and Japan must find here a port; and soon, I have no doubt, Australia will send her mails and treasure to this city, to be transported across the continent to the steamers at New York: and thus it is that San Francisco must ever remain the mistress of "our western ocean."

And now, with many thanks to all my friends in the

“City at the Bay” for their attentions, I must take my leave of San Francisco by addressing to her these beautiful words of her own poet, Bret Harte:—

“Serene, indifferent of Fate,
Thou sittest at the Western Gate.

Upon thy heights so lately won
Still slant the banners of the sun.

Thou seest the white seas strike their tents,
O warder of two continents!

And, scornful of the peace that flies
Thy angry winds and sullen skies,

Thou drawest all things, small or great,
To thee, beside the Western Gate.”

CHAPTER XVI.

Napa Valley.—Napa City and its Gardens.—White Sulphur Springs.—Calistoga, the Saratoga of the Pacific.—The Ride up to the Great Geysers.

ON the 23d of May we started upon our trip through the

NAPA VALLEY.

Taking the four-o'clock boat, we had a delightful sail through the bay to Vallejo. As we leave the city, we pass in sight of the Golden Gate and Fort Point, alongside of Alcatraz and Angel Island, thence through the Straits of San Quentin into the Bay of San Pablo. This is a broad expanse of water, bounded on all sides by high hills, save to the north-east, where Mare Island forms the harbor of Vallejo, and where begin the Straits of Carquinez, which open into Suisun Bay, into which empty both the great rivers called the Sacramento and San Joaquin. Upon Mare Island are erected the buildings connected with the navy-yard, including ex-

tensive machine and other workshops, a hospital, great storehouses, a magazine for powder, and houses and quarters for the officers and men. In the river facing Vallejo have been built fine docks and wharves, which make safe landings for the largest vessels; while the harbor is of a size sufficient to accommodate all the fleet of the country if necessary. Here lies the old "Kearsarge," whose crumbling frame and rotting timbers could now ill stand the battle, but whose every plank has been made famous by that terrible fight with the "Alabama."

The city of Vallejo lies a little away from the landing, has the only steam-elevator in the State, some pretty good buildings, many poor ones, and looks very old. It is only kept alive by the trade of the soldiers; but its people still cherish a fancy that it is to be a great city. Of this place we cannot speak much praise; for, with all its natural advantages of a fine harbor and government patronage, it seems to be asleep, almost dead.

Near the city is the terminus of a railroad called the California Pacific, which formerly connected this city with Sacramento, but is now unused, a bridge being gone, as is said; but no doubt the fact is, the "Central" is *freezing* out some of the old stockholders who are unwilling to *sell* out.*

* This route is now in order, and is by far the pleasantest way of going from Sacramento to San Francisco.

The road, by one branch, runs up the Napa Valley, through one of the most beautiful and fertile of those many great plains which lie between the mountain-ranges of this State, this being the eastern one of three, — Sonoma, Petaluma, and Napa, — which start from the bay, and take a general north-west course.

From Vallejo to Napa City the road follows Napa River. The country around is pleasing, the ranches well formed, and the buildings better than in most parts of the State. This valley is productive in wheat, barley, corn, and grapes, yielding immense crops. But we are now in view of, and soon will be in, the very heart of

NAPA CITY.[°]

This is a town of some four thousand people, lies upon the west bank of the river, is well laid out, contains many stores, two banks, has two daily papers, and is one of the *flourishing* towns. A little steamer and small-sized schooners run up to the city. The climate is very agreeable: the cold winds of San Francisco are here modified into soft and balmy breezes. About five miles from the city are soda-springs, where they dip up soda-water, put it into bottles, surcharge it a little more with gas collected from the spring, and send it away to be drunk by all. No fountains, no sulphuric acid, no lime-

stone and intricate machinery, are here needed to manufacture soda; for Nature has her own laboratory, where she makes this "delicious drink." By politeness of the Messrs. Goodman, bankers, we were shown around the city. In the garden of Mr. George Goodman we saw finer roses, and by far finer pinks (both carnation and picotee), than we ever saw growing in the open air. Here were all the tea-roses, great beds of verbenas, and pinks in almost endless variety, and in size equal to Henderson's choicest blooms. He has a fine collection of conifers, among them the Sequoia, as well as many deciduous trees. All that is needed to make this one of the handsomest of gardens is a good lawn of fresh-growing grasses. The roses of Napa are the best I have found, the foliage entirely free from all insects and worms, and giving, I am told, blossoms every month in the year.

Among the leading citizens of this pleasant little city, which nestles among her locust-trees, and is brilliant with her wealth of blossoms, is Mr. Smith Brown, who early left the town of Burrillville, R.I., to seek his *fortune* in California; and we were glad that he had found *it*. A long residence away has not weaned him from his old Rhode-Island notions; and we found his house containing more of the old New-England "comforts" than any we visited in all California; and they were many.

But, if we delay longer at Napa, we shall miss the train which starts at eleven o'clock for St. Helena and Calistoga. The ride to the first-named town is even more interesting than that to Napa. The grape-lands begin ; and we see fields of twenty, fifty, and even a hundred acres planted out to the vine, and now in all the luxuriance of setting fruit. Large wine-houses are seen along the line ; and extensive farmhouses dot the landscape, embowered among the beautiful trees for which this valley is famed. Many of the wealthy "Friscans" have their summer residences here, where they are protected against the cold winds which make the city climate so disagreeable, especially in summer. Among the many fine places, that of Woodward's seemed to be superior in its appointments and the great neatness which prevailed in every department. I noticed, that, in some places, the apple-orchards were badly stripped of their leaves by the caterpillar, but were told that it was quite uncommon. As we go north, the valley narrows so perceptibly, that it seems an easy walk between the hills which bound us on either side. All things considered, this is the best farming-section that I have seen, which is the secret of the wealth of the people who reside here. The rich farms will continue to pour their immense crops of wheat, barley, and wine into her storehouses, forcing Napa to become a city of importance.

We stop at a pretty little town called St. Helena, where we take a carriage for the

WHITE SULPHUR SPRINGS.

They are some two miles up a beautiful cañon; and, as we drove up to the hotel, we felt assured that we had found the gem of California resorts. There are nine of these springs, the largest one of which discharges six thousand a hundred and forty-four wine gallons per day. They were first discovered in 1850; having been a favorite resort for the Indians, to bathe in the warm waters, or drink them, and, with them, health. Around the pools, where the warm water gushes from the ground, they erected little huts of skins and barks, and in them sweated themselves in the hot sulphur vapors.

The waters of these springs are warmer than most of the sulphur springs of Europe; and they contain, besides sulphur, carbonate of lime, magnesia, sulphate of soda, salt, lime, &c.; and many suffering from rheumatism and skin diseases told me they found great relief by the use of these waters.

From the surrounding hills fine views are had; and the various trails which have been cut lead you by easy grades to the tops of mountains, and along frowning

precipices. You must bear in mind that we are in a little gulch between towering hills; that there is little room to spare, for the hotel buildings occupy nearly all the space; that across the ravine, just beyond, lies another hill, so that, to get out of this retreat, we must retrace our steps. The hillsides are occupied by pretty cottages and sleeping houses; for here they build summer hotels upon a plan which an inclement climate would forbid. The "hotel," as it is called, is a building containing the office and a common parlor, adjoining which are neatly-arranged bath-rooms, into which the waters from the spring are conducted; across the drive-way is the dining-room, and to the right the billiard-hall; the kitchens are farther back; and up the gulch are several buildings, divided each into three sections, for sleeping-rooms. To the left of the hotel, on the plateau (upon which stood the finest summer hotel in the State, but which was unfortunately burned), have been erected some dozen single cottages. All the occupants of these various cottages take their meals at the common dining-hall, or gather in the common parlor after dinner, but can at any time remain in their own cottage as quietly and as secluded as they desire. The grounds are laid out with taste; and the most scrupulous neatness is shown on every hand.

The hills, rising from seven to eight hundred feet, are

well wooded, and clothed in exquisite flowers ; and up the gulch a little way is a grove of seven redwood-trees, the only specimens of this tree in many a mile,—the only ones I have found since leaving the Truckee region in the Sierras. A stream runs through the estate, in which there is good fishing.

The genius of the place is Mr. John Bremberg, whose position is express-agent, telegraph-operator, writer of the bills of fare, catcher of butterflies, superintendent of the baths, general helpmeet for everybody, and charged with the important duty of making every one happy. To attend to all his duties, of course, John is kept busy ; and he rushes here and there, he sweats and foams, but always has a kind word for all. For now it is some little child who wants John to help at her play, and he goes ; now some old lady wants John to come and pack up her trunk, and off he goes ; or some “Spanish beauty” comes for John to go for a walk, and protect her against snakes, and he goes willingly. He keeps a medicine-chest, which has gained him the title of “doctor ;” and, as he peers over his gold-bowed spectacles, he does really *look wise*, which, in these latter days, is all that is required to make an M.D. Mr. Bremberg is an intelligent gentleman when not overwhelmed with official duties ; and in another avocation the same industry would bring him renown.

This establishment is conducted by Mr. Severn Alstroom,—who opened the Lick House in San Francisco; and by his liberal management gave it a great reputation, although at a serious pecuniary loss to himself,—aided by a very gentlemanly clerk, Mr. Wickes. To forget our visit to White Sulphur Springs was impossible; and when the clock struck seven, the time to leave for the train, we turned away from so pleasant a spot and so genial a company with regrets.

From St. Helena, a ride of nine miles brings us to the town, Calistoga, the derivation of which is easily perceived,—*calis* “hot,” and *toga* “a garment.” The name was given by a gentleman who had received benefit from the numerous hot sulphur springs here. The “Little Geysers,” as they are called, were used by the Indians; and over them they erected their sweating-huts, remains of which were found here. The railroad terminates here; and the train which leaves the city at four o’clock, P.M., reaches the town at eight in the evening. Here begin the wagon-roads, which traverse the great defiles in the mountains, up to the Great Geysers, the Clear Lake, the Petrified Forest, and Mt. St. Helena. This mountain rises forty-three hundred and sixty feet above the plain, and was named by the Russians in honor of Helena, the mother of Constantine the Great. A valley near by, and in which the Spanish permitted the

Russians of Alaska to come and raise their wheat, is still known as Russian Valley.

The town has no other importance than being the railroad station for the "Springs," which is undoubtedly the "Saratoga" of the West. Here, as at White Sulphur, we have a hotel, and a great number of pretty cottages, each with a poetical name, as Revere, Occidental, Adelphi, Delevan, &c., and arranged in a circle around the central building. Over the springs have been erected fantastic structures, which mar the landscape, but which have been built to please the fancy of the proprietor, Sam Brannan, as he is familiarly called. Mr. Brannan was one of the early pioneers, and has done as much as any one man to develop the resources and advantages of the State. In conversation, he charms you with interesting descriptions of the "olden times." To him alone belongs whatever Calistoga and its surroundings are to-day; and with lavish hand he has tried to make the place beautiful. But his trees, plants, and vines, gathered from every quarter of the globe, have been a failure; for nothing, the roots of which extend more than a foot into the ground, will grow here, owing to the heat, as well as to the mineral deposits.

Every kind of a bath which Mr. Brannan ever saw, read of, or heard of, he has here reproduced; and it

would seem, that, by the number, he had counted up the numerous ills of life, and for each prepared his panacea. People from all over the State, and of course all tourists, come here to spend a few days in a climate genial and warm, ranging from 50° at night to 86° at noon, and but seldom varying from these figures. The house is in charge of Mr. Badlam, who seems to know how to keep a hotel.

The drives through the grounds are delightful; and a close examination of the springs reveals their wonderful character; for here are waters from cold to boiling, and pouring from the earth within a circuit of an eighth of a mile, and each spring different in the component parts of the water. There is one spring the waters of which, by adding a little pepper and salt, become chicken-soup,—at least as much “chicken” in it as most hotels use in these days.

GREAT GEYSERS.

But the end of all this journey is a ride over the mountain-road, and the Great Geysers at the end of the road; and we must arrange with Foss, that knight of the whip known all over California, for our seat in to-morrow’s stage.

THE MOUNTAIN-RIDE.

We find that the engineer who built that road, Mr. William Patterson, is to go to-day over the road; and we gladly accompany him. We are to be driven in a four-horse coach, by an experienced driver, who does not yield the ribbons even to Foss. Punctually at seven we are off, a jolly company of eight, for the wonderful mountain which is on fire; and away through the village we dash. The first ten miles of the road is uninteresting,—a wild and broken country, with hardly a habitation in sight. So far, we are on a country road: we change horses, and strike off upon a run over the mountain road *proper*; and our interest begins. Around the sides of the hills we wind, and up the rocky faces of mountains, where our track has been blasted out of the solid rock, just wide enough for a single carriage. There are places, where, if the wheel should turn from its course one-half a foot, the carriage would plunge down a precipice from two to three thousand feet. As we ride along, the difficulties which beset the workmen upon the road are pointed out and explained; and at every step a new interest is excited, new views obtained, and new dangers successfully passed.

Mr. Foss was born among the granite hills of New Hampshire, and there imbibed his love for the moun-

tain-roads. This one he projected; and it was built during 1868 and 1869. The first stage-trip was made July 3, 1869; and they have since been continued during each season. The length of the road is seventeen miles, two chains, from the end of the country road, and cost, in round numbers, twenty-two thousand dollars. The highest grade is one foot in ten; but the average is one foot in eight. Calistoga is four hundred feet above the sea; the summit is thirty-six hundred feet; and the plateau, upon which stands the hotel at the Geysers, is seventeen hundred feet.

While we have been talking, we have reached the summit; and we stop to look at as grand a spectacle as the eye can behold. In front far, far below us, we see the line of the great Russian Valley; but the mountains beyond seem so near, that, at this altitude, the plain of the valley is lost sight of. Around us on every side rise hills piled one upon another; mountain succeeds mountain, with gorges, ravines, and cañons between them; the clouds, fleecy and white, as they scud over our heads seem within reach. Magnificent flowers have made our ride charming; the lupins, the geraniums, and mountain daisies greet us; while the ceanothus, in many colors, adorns the hills. The madrona with its curious bark, the manzanita with its curious-colored wood and peculiar

growth, the several varieties of oaks, firs, and cedars, all line our track, and offer here and there refreshing shade.

Our ride up to this point has been slow; but now even the horses seem to know that the rest of the way lies down hill; for at the word they prick up their ears, and start upon a run; the driver screams, and cracks his whip; the horses catch the excitement, and are soon going at a twenty-mile gait. For the whole eight miles down, there is no quarter-mile, where, for that distance, the road is straight, but it winds and twists, makes ox-yoke curves, crosses dashing brooks, by dancing waterfalls, and over yawning ravines, always seeming to you that the end has come to that road, but always finding some way out. The eight miles have been done in some thirty minutes; and we are nearing the hotel, where we are to rest for the night within sound of the hissing and roaring of the steam. The genial German, Susenbeth by name, always called Susey for short, is at the piazza to welcome us, and help us shake ourselves free of dirt and dust, and assures us that there is no danger.

As we were running down the mountains, with our well-trained team at their speed, and guided by "Corneil Nash," we said to him, "Are you not sometimes afraid? and how do timid ladies like to ride in this manner?" — "Perfectly safe, sir," said our knight. "Driven here

nine years, and no accident. Guess I'll land you at the hotel all right." And, now that we are over the road safely, let us praise the "bridge which has carried us over," and seek a rest after such a ride.

CHAPTER XVII.

The Great Geysers.—What they are, and how they look.—Their Discovery.—The Ride back to Calistoga.

THE GEYSERS.

OUR dinner was ready by the time we had the dust brushed from our clothes, and were in trim for table ; and, with appetites sharpened by our ride, we filed into as uninviting a dining-room as you could imagine. The walls were of rough boards, whitewashed ; and even these were made to look more ugly by hanging upon them the advertisements of several insurance companies, some of which we knew *to be no more* since the Chicago fire.

Our food was an attempt at the preparation of *French dishes*. There was an abundance of it ; but, oh, what peculiar concoctions ! Still they all had *splendid* names.

As I told you, “Susey” is a German ; his people around him are the same ; and his cook is probably of the same nationality, but with *French* aspirations in

cookery. A German always makes a poor show at imitating a Frenchman ; and a *Gasthälter* who attempts to become a *maitre d'hôtel* does it at the peril of reputation.

The food satisfied our hunger,—so much in its favor,—and we felt ready to explore the steaming and hissing gorge which lay in front of us across the brook. To give an idea of our location, imagine a long building with a veranda in front, from each end of which, but upon opposite sides, extend other buildings, connected with the main one by covered passages. In one of these is the general parlor, in the other the dining-room ; while the main building contains the sleeping-apartments, which are arranged in two stories, and on the two sides ; those above as well as below being entered from the veranda. Standing in front of the main building, and looking west, we have the whole extent of Pluton Cañon in view. Geyser Cañon crosses it at right angles, just a little way from the hotel, and is far the larger ; quite a river, called Pluton, finding its course through it. All the near-by country is mountainous ; and upon the sides, and even around the springs, grow in luxuriance the oak and many woody shrubs, together with the madrona and manzaneta. Just at the head of Pluton Cañon a rock juts out into the gorge, which has received the name of “The Pulpit.” Here the cañon

divides; and to the right and left rise hills, whose sides in places are as precipitous and straight as the walls of a building. Looking far away, hills succeed hills; while behind rises a great mountain with the euphonious name of the Hog's Back.

At about four o'clock, P.M., we started, under the conduct of a guide, to explore the cañon, and to take a near view of these wonderful springs. While the sun shines in the gorge, the steam which issues from the earth is dissipated by the heat; but in early morning the whole cañon is filled with the clouds of steam, which roll through the gorge, giving it a grand and awful appearance. Crossing Pluton River, we find ourselves at the bottom of the cañon, which at this point is some thirty-five feet wide, but which narrows as we look up its whitened surface for some half a mile, at an angle of some forty-five degrees. There are about two hundred fountains, or springs, where steam, to a greater or less extent, issues from the ground. The guide having given to each a long, stout stick, we step upon the bed of mineral deposits, which was once a steaming geyser, but the residuum of which has for years been bleaching under the suns and rains of the recurring seasons. The first spring is the Alum and Iron, the temperature of which is 97° Fahrenheit, and around its sides are incrustations of iron. A little farther on we find a spring containing Epsom

salts, magnesia, sulphur, iron, &c., — a highly medicated compound, and which has been named the Medicated Geyser Bath. Around us we see beds of crystallized Epsom salts. We pass in order Boiling Alum and Sulphur Spring, Black Sulphur, Epsom Salts Spring, and Boiling Black Sulphur, which roars unceasingly. By far the largest is the Witches' Cauldron, the diameter of which is about seven feet, and the waters of which boil and bubble, sometimes being thrown two feet into the air. It is said that all attempts to find a bottom have failed. We next reach the Intermittent Geyser, which sometimes throws up boiling water fifteen feet in the air, but which was very calm the day we visited the cañon; the water being thrown only three or four feet. The Devil's Inkstand is a small spring, out of which flows a liquid which is a good substitute for ink, and which has the quality of being indelible. It is a custom to dip the end of your handkerchief into this spring, that you may carry away the ineffaceable mark of your visit.

We are walking over ground which is honey-combed by extinct geysers; and often our feet sink ankle-deep into the mineral deposits which have been left, or, again, we place a foot where the ground is too hot for comfort. As we are obliged sometimes to cross a space where the very earth seems on fire, and to step from stone to stone, between which are boiling, steaming openings,

from which arise sulphury fumes so strong as almost to stifle you, it is hard to persuade yourself that you are not in the realms where old Pluto holds sway.

The most wonderful (if one can be placed above another) of these springs is the Steamboat Geyser. It is on the left, and raised ten to fifteen feet above the cañon level. From its many apertures issue steam, resembling in look, and especially in sound, the blowing off of steam in a steamboat. Around this spring, for some distance, are evidences that once the spring or springs extended over a much larger space. Just beyond this we reach the rock called "The Pulpit," which we saw from the veranda. We climb up there: the guide fires a pistol to let those at the hotel know that we have reached this place in safety. At this point, the cañon makes a division, and we take the right. From these positions we have an extended view of the cañon down its length; and all these springs — even the Steamboat Geyser, the Witches' Cauldron, and those boiling, sulphury fountains — are seen from above; and, as we gaze, it seems impossible that we could have made our way up among them to this place.

We pass on over the Mountain of Fire, which is covered with orifices from which once poured fire and steam; and around us, within a space of, say, one mile in length, and a few rods in width, we see strata of sul-

phur, Epsom salts, alum, copperas, yellow ochre, magnesia, cinnebar, ammonia, nitre, tartaric acid, &c. A little farther on, we find the Indian Spring, where the red men used to bring their sick to be healed, and where were found the rude sweating-huts erected by the natives. Here, in 1869, Edwin Forrest found great relief from the use of these waters. The Eye Water Spring has also effected many cures for weak and inflamed eyes.

But a great whistling attracts our attention; and, with the guide, we hasten on, and soon come to a small aperture, from which the issuing steam is carried into a small iron pipe made like a boy's whistle, which is thus made to screech fearfully.

At this point we perceive that we have been nearing the hotel, although now at quite an elevation above it, and some distance away. A fine view is had of the surrounding hills; and, after a rest, we make our way down the sides of the mountain, to Geyser Cañon, and along the river to a bridge which spans it, and over this to the hotel.

The guides who accompany us have a fashion of giving the name of every spring as in some way connected with the Devil, as, Devil's Kitchen, Devil's Office, Devil's Punch-Bowl, and many more in equally bad taste. I have avoided these names; and if those who

have control over this property would have the cañons surveyed and mapped, with the location of the principal springs, and give them names which would designate their properties, much would be done towards making them more generally known and deservedly popular.

As soon as we reached the hotel, I asked the proprietor if he could tell me who discovered these springs. "Elliott," he said, "was the name; and upon an old register, the first the house had, I will show you the entry in his own handwriting." Taking from a desk an old book, and turning over its pages, we found under date of April, 1847, the occasion of a visit of Elliott to the springs, the following:—

"William B. Elliott was the first known visitor to the Geyser Springs, when out on a bear-hunt, and now resides at Clear Lake."

Under this a friend has written in trembling hand,—

"Poor fellow! was killed by the Indians at Pyramid Lake, May, 1860."

Thus is told the simple story of the discovery of these wonderful geysers, and the death of the hardy hunter, who modestly calls himself "the first known visitor."

It is not my province to speculate upon the causes of these phenomena; to scientific men I leave this: but still it is impossible not to philosophize upon the sights

which we have seen. Two theories are advanced, — one that they are produced by purely chemical action, and the other by volcanoes. To receive the latter would require some evidences of volcanic action in the hills and mountains around, which we fail to see ; and to accept the first seems to attribute to chemical force greater power than we had supposed could be thus produced,—as in the great boiling caldron, or in the spring whose waters are sometimes thrown ten or even fifteen feet into the air.

Ready for tea and an early bed, that we may have another view of the geysers in early morning, before the stage starts at seven o'clock, we seat ourselves upon the veranda.

Our view of the gorge in the morning was grand ; for although it was not easy to examine minutely each spr'ng, still we saw the cañon filled with the boiling clouds of steam and sulphury vapor, and could hear the hissing and puffing of the innumerable orifices.

But the stage is at the door, and we must be off for a climb to the summit of the mountain ; and, bidding adieu to the geysers, we begin our journey. The cool mountain-breezes fan our cheeks ; the great hills and tall trees temper the rays of the sun ; the flowers send forth their fragrance, and, with their varied blooms, allure us to remain among them. “Nash” was full of talk, and so

we had all the stories of the region ; and, with good company and pleasing views, we found our toiling up-hill ride soon accomplished ; and a quick drive of a few miles brought us to Pine Flat, as it is called, where we find the stages which have come up from Calistoga, and in which we are to be taken back to the town.

As soon as all things are ready, we start down hill (two stage-loads) ; and it was suggested that we time the drive down to the county-road, the distance being, as Mr. Patterson placed it, eight and one-eighth miles. Two *reliable* gentlemen held the watches, while George Cromwell held the whip and ribbons. Away we dashed, at such a fearful, break-neck speed, that had not Patterson assured me that he built the road, and that Foss's stages and harnesses never gave way, I should have preferred to have been walking. Before we could make up our minds whether to complete the ride, or take to foot, we were reined into the stable-yard, where we change horses. That more than eight miles had been done in twenty-nine minutes (one watch showing a little less), and that, too, by a team of four horses, drawing a stage with six persons in it, seemed impossible. Where is Dexter ? To be able to say that you have taken such a ride is worth quite a journey ; besides, it enables you to behold grand scenery, and witness some of the most curious developments of nature.

By the same uninteresting drive of ten miles, we were taken back to Calistoga, where "fashion reigns," and so different from the solitude which we left a few hours ago,—a place where the Creator has made it impossible to build cities, or for people to congregate; a vast solitude, with springs and fountains sending forth health-giving waters, inviting to the sick and suffering.

A rest during the afternoon prepared us to attend the little village church in the evening. Next morning we took the early train; and in company with the mail agent, E. S. Parker, formerly of Providence, we made our return-journey through Napa Valley, to the boat at Vallejo; and, at about twelve o'clock, we were back again at our hotel in San Francisco, after one of the most interesting and instructive excursions that we have ever made,—one which the tourist to California must not fail to enjoy.

A rest of a few days, and we shall be off for the Santa Clara Valley, the city of San José, and the New Almaden quicksilver mines.

CHAPTER XVIII.

Santa Clara Valley, and the Cities of San José and Santa Clara.—
The Mission.—The College.—The Alameda.—Public and Private Buildings.—The New Almaden Quicksilver Mines.

ON the 29th of May we set out for a trip through the

SANTA CLARA VALLEY.

After an early breakfast, we wended our way to the dépôt of the Southern Pacific Railroad, on Market Street; and at eight o'clock we were rolling out of the city. As soon as we were out of the suburbs, the fertile farms of San Mateo County were seen upon either side of the line. A glance at a map of California will aid my readers in fixing in mind the location of the towns and places which I shall describe. We are now going in a south-easterly direction, along a narrow ridge of land, which pushes north towards a similar jutting spur, which extends to the south, and separates the Bay of San Francisco from the Pacific, and which, by

their peculiar formation at their nearest point of meeting, have received the name of "Golden Gate." As we pass along the low stretch of shore to the east, towards the bay, we have on the west the hills of the Sierra Monte Diabalo range, which hide from view the ocean, but back of which we can see the huge fog-clouds which the Pacific so delights to send up from its placid bosom.

A few miles out we pass directly through the great farm of D. O. Mills, Esq., president of the Bank of California: on the right, just upon the foot-hills, stands his palatial residence, built of brick, in the style of the French *Rénaissance*, surrounded by elaborately formed houses of glass, which are a necessity with us, but here more for ornament, as it is only for a few weeks, during the great rains, that any plants, even those in pots, require protection. Near the track are situated his extensive barns, milk-houses, and other necessary farm-buildings, up to the doors of which a "siding" has been run, so that the milk from his great dairy can be taken directly from the barn upon the cars, to be transported, in a very short time, to the city. Away to the east a beautiful reach of low, marshy meadow intervenes between us and the waters of the bay. The whole farm smacks of unbounded wealth; and it seems a good omen that Mr. Mills prefers to carry on this

magnificent farm, improve the breed of cattle and horses, by experiment decide the most useful crops, and, by his example, teach others how to till the ground, that health and plenty may come to the people of the State.

But our train draws up at a station called Belmont: and, as we had been told that this was the station nearest "Ralston's *royal* mansion," we looked around in hopes of seeing that house; but it is so situated among the foot-hills, that it cannot be seen from the road. When I describe an entertainment given a party of ladies and gentlemen at this mansion, and of whom I had the good fortune to be one, I hope to make you acquainted with the house and grounds, and know something of the sumptuousness of the private life of a rich Californian.

We now enter the valley proper by making a little turn eastward; and at once we see that we are within one of Nature's great parks. This valley has been often called the "garden of the State;" but we would rather term it the "park." The great oak-trees, both the black and the live oak, stand in all their majesty upon the plain, and from their branches hang the mosses, just as you see them in the far South. They are scattered through the fields just as the landscape-gardener would desire them, but in an order which he always

fails to get whenever he tries his hand at imitating Nature's planting. The *grasses* look greener and fresher than anywhere else that we have been in the State; and, although we do not see a great variety of flowers, we do have the yellow blossoming mustard-plant, covering acres in one mass of gold. We see wheat-fields of a thousand acres, that is, with no fence between, and the only breaks being dead-furrows; orchards of apple, pear, peach, and nectarine, of great extent; as well as plantations of English walnut, almond, cherry, and fig. From this valley come as fine strawberries as are produced in the State; and we visited one strawberry-patch which contained sixty acres, the vines covering the ground almost entirely. Oats, barley, and, to some extent, corn, thrive; and the potato produces large tubers, but the quality is not as good as in sections farther to the north. The hay made from the wild oats and the volunteer crops, that is, grain which grows from the droppings from the last planting (they having here none of our grasses), is considered very nutritious; and the fields which we visited yielded immense returns. One field upon which we went was being cut for the second time; and the farmer said he should obtain one more crop before the drought succeeded in killing all green things.

The villages through which we pass have a look of

thrift; and the many fine grounds and elegant mansions which are seen along the line convince us that here "wealthy Friscans" love to make their homes. Back from the railroad, the spires and housetops of the old town of Santa Clara appear in view; and, after a ride of three miles, we arrive at the city of San José, which is located in the very heart of the valley, and just fifty miles from San Francisco.

As is well known, the Spanish had their military post, called the Presidio, near the entrance to the bay in 1776, which is now within the limits of San Francisco. The commander of the post in 1777 resolved to make an agricultural settlement near the mission which had already been established at Santa Clara some ten months, and accordingly, on the 29th of November of that year, made a beginning on the banks of a creek, which they had named Gaudaloupe: but the early settlers were much annoyed by the floods which overflowed the banks of the creek, and destroyed their property; so they moved their town to the north. All that is now left of the ancient town is one large storehouse, and the Halls of Justice, both built of adobe, and now in a very dilapidated condition. In 1797 the town had changed its location, and occupied the present site of the city. All this was in the time of Charles IV., when all that section, of which California is only a part, be-

longed to the crown of Spain, and was ruled by a governor, who with soldiery kept the Indians in subjection. The name given to the new town was El Pueblo de San José de Gaudaloupe. In 1814 there were only twenty dwellings; and the only foreigner (that is not a Spaniard or Indian) was John Gilroy, a Scotchman. In 1831 the population was five hundred and twenty-four; and, as late as 1834, there were in all the town only twenty foreigners. In 1844 arrived the first party of Americans from Missouri; and in 1846 another party of a hundred and twenty, commanded by Fremont, reached this valley, and came to the city. On the eleventh day of July, 1846, Capt. Thomas Fallon took possession of the town in the name of the United States; and from this time begins its history. It was the first capital of the State; and here the legislatures of 1849 and '50, and 1851 and '52, were held. After this the capital was removed to Sacramento. The city has now a population of about fourteen thousand, and is increasing faster, proportionally, than most of the cities. Although the loss of the capital was a severe blow to the little town, still it grew slowly, as the centre of a rich farming section. People seeking a pretty town to reside in, after they had "dug from the earth a fortune," came here; and soon the community was one where existed great individual wealth,—a position which it still retains.

The streets are broad, laid out at right angles, and mostly well graded. The city is well supplied with water; as in most parts, by sinking an artesian well, the water rises several feet above the surface,—a pleasing substitute for windmills. The depth of these wells does not average more than thirty feet. This gives to San José peculiar advantages, as water in California is the great *desideratum* during a large part of the year. The buildings were very commonplace till within a year or so, during which time several fine blocks have been erected, doing credit to the enterprise of the citizens. The Court House is the finest public building (save the Capitol at Sacramento) which we have seen in the State. The State Normal School Building, built of wood, in the Corinthian style, is the finest, as well as the largest, wooden building in the State. It is to be ready for occupancy in about a year; and when the park around it is laid out, and planted, the whole will have a grand and imposing effect. The Academy of Notre Dame is located here, and, as a school for young ladies, is of great celebrity. The Auzerais House is a good hotel, in a pleasant location, where a Yankee, by name Churchill, will see that you are well cared for, at prices which are moderate.

In the old part of the town, near the Halls of Justice, we found the old plaza, where the bull-fights

used to take place ; and scattered through the city are many old Spanish families, the members of which look, even now, as if they would relish "just one more bull-fight." There still remain many of the old adobe houses ; but, for the most part, the residences of the people are not only comfortable, but in many instances elegant. The grounds surrounding many of the residences are very finely laid out, and the planting done with good taste and judgment : of all which we saw, those of Gen. Negley pleased us most ; and when we were told, that nine years before they were within a great field, and that most of the trees had been only three years planted, we were perfectly amazed. But we must bear in mind that here the seasons are so much longer, that the trees and plants can make much larger growth, which, when compared with our New-England season, gives probably three times the growth in a year ; and with many plants the proportion would be still greater.

THE ALAMEDA

is the road connecting the cities of San José and Santa Clara. It is about three miles long ; was laid out by the monks, who planted upon each side of the way trees (the willow, oak, and sycamore), which have now become very large, so that, for a large part of the way, their branches

interlace above your head, offering a grateful shade. Tradition tells us, that the monks used to walk over from Santa Clara, and gather the Indians at San José around a cross which they had erected there, and tell them of God and the Bible: it is also said that the work of collecting and planting the trees was done by the converted Indians. By the kindness of Major George R. Vernon, formerly an officer in the army, but who resigned to give his whole attention to his extensive farm, we were driven about the city, and over the Alameda, rendered historic by the old monks of the mission, who wended their way on foot over this very ground to carry "good news" to the Indians. I care not what was their creed, to them belong honor and thanks for the self-sacrificing spirit, which led them to the holy work of converting the savages. To this day the good they wrought remains; and through them this great section was opened for the advance of civilization.

Our drive over this famous road prepared us to retrace our steps next day, and visit the city and mission of

SANTA CLARA.

The town is old and dilapidated, without any appearance of business or even thrift. A horse-railroad connects the two cities; and were it not for the college

buildings, and the students who attend, the town would seemingly be deserted. There are still remaining many old adobe houses, built by the Spaniards and Mexicans ; and in one which we visited we found some dirty, ignorant Mexicans, unable to speak English, and with only the rudest implements for housekeeping ; and in a shed adjoining the old house, enveloped in rags and filth, lay an old woman ; and in another part of the house, in a room without windows or fireplace, was a woman and several children. These people are descendants from the proud Castilian and the native Indian,—a deplorable race, and more hated by the few *pure-blood* Spaniards who still survive the misfortunes which have overtaken their rule in America, than by the Americans themselves. As we roamed about the old town, we discovered many evidences of the degeneracy into which this race had fallen. Many of the men *live in the saddle*, and get their food and blankets from the occasional sale of a pony, of which they always have several along with their train. Even the young boys show great expertness in the use of the lassoo.

Having tired of looking about the town, we called at the entrance-door of

SANTA CLARA COLLEGE,

and were ushered into a neatly-furnished parlor. With-

out waiting long, a priest called, whom we afterwards found to be the learned Rev. Prof. A. Cichi, through whose untiring efforts this institution has now one of the most extensive collections of philosophical apparatus in the whole country. He said he was ready to show us around the college ; and we visited the several recitation-rooms, the laboratory, the museums, in all of which every "appliance of learning" was to be found. We were taken into the dormitories and the dining-halls, where the greatest neatness was apparent; into the rooms of the debating society, and the great hall fitted up with the accessories of the theatre, as well as into the various rooms for the teaching of special studies, as photography, mining, &c.; through the beautiful gardens, where now are growing the fig and olive trees planted by the early missionaries, and under whose shade the "brothers" were now walking as they recited to themselves the words of their prayers, and willed their thoughts from things temporal to those of "the life to come." From the garden, we went into the old adobe church, built very narrow, but very long, as the early builders knew only how to lay beams across from wall to wall, instead of sustaining the roof upon a truss. The interior of the church is, of course, very rude ; and the old altar is still there, around which the "brothers" and their converts have often knelt.

The old paintings brought from Spain still adorn the walls; and some of the painting and coloring upon the ceiling is just as it was originally. The sides of the buildings have been incased in wood to preserve them; and above the old tile-roof another has been placed to keep out the rain. What thoughts arise in one as he stands within such a sanctuary! This church is much better preserved than the old Mission Dolores in San Francisco, which we visited; for while there much that is modern has been introduced, here all is *old*, nothing that is *new*. The same *three* bells—a Spanish custom—are still rung at morning and evening.

The mission is very old, older by far than the city: but the college was not founded till 1855, by Rev. John Noblii; and since its birth it has been very prosperous, being patronized by all denominations, as the studies are so arranged, that a Protestant is in no way debarred from the privileges of the school. The average number of scholars is about two hundred.

We found Prof. Cichi not only a scholar, but a gentleman; and to him we are indebted for many favors in looking over the buildings and grounds of this mission.

As we left the college, just across the street, enclosed within a little wooden paling, stands one of the old wooden crosses, around which the savages used to con-

gregate, and which they in their humble devotions, and in token of their recognition of the truths which the Jesuits told them, used to kiss. We wended our way back to San José, filled with thoughts of what we had seen.

THE NEW ALMADEN MINE.

But, before I close, I must tell you of the famous quicksilver mines, which are situated some seven miles from town, and known as "the New Almaden Quicksilver Mines."

Although a stage runs to the mines, it is far better to go by private carriage. The road to the mines is pleasant, and is lined with the most magnificent sycamore-trees which can be imagined, with great branches stretching away thirty feet from the trunk, and resting themselves upon the ground, and with gnarled forms which tell of antiquity. Every one of them is a study for an artist, and should be put upon canvas. We soon enter a defile in the Santa Cruz Mountains; and, as it narrows, we come within the property of the company. Passing the church, the residence of the superintendent, and the neat cottages of the miners, we drew up in front of the hotel,—a long one-story and a half stone building, into the rooms of which you pass di-

rectly from the sidewalk. In front of us are the offices and smelting furnaces of the company, together with shops and various buildings required in the production of quicksilver from the cinnebar ore. We are now in the part of the property called the hacienda.

As I was familiar with the suit which decided the title to this property, knew personally many of those who were early interested in the company, and knew many more who still owned stock therein, I felt a great desire to look over the property, about which I had read and heard so much.

Passing through the gate, we called at the office, and, upon inquiry, were informed that Mr. J. B. Randol, the superintendent, was up in the mines, which are above on the mountains. Soon he returned; and we found, that although he was leading a life far away from friends, and among rough miners, he was still the gentleman we had always found him to be in New York. Giving us every facility for seeing the property, we proceeded first to one of the furnaces which was in operation. It is built of brick strapped with iron, and has five openings along its sides. From a platform above, it is charged; that is, the ore called cinnebar (a red-looking stone) is packed into the fire-chamber: this is connected with the other chambers by long pipes, which gradually recede from the influence of the heat, and at

last find an opening far up the sides of the hills, in a chimney, out of which pours the poisonous vapors of arsenic.

The ore is heated above 480° Fahrenheit, when the quicksilver in it is *sublimed*, and passes along into the chambers and flues, and, as it is separated from the other substances, is gradually cooled, until it is precipitated, and runs from the chambers in little globules into a trough, extending along either side of the furnace, and which, by its inclination, carries the quicksilver into a large receptacle, which looks like an old-fashioned *set iron boiler*, and from this it is dipped, weighed, and poured into the flasks, which are made of cast iron, hold fifty-six pounds, and are closed by a thread-cut stopper. Having seen this part of the work, we next drove, by one of the finest mountain-roads that could be made, up to the mines and the villages on the hill. The grade is so adjusted, that heavy loads are drawn up the mountain-sides, and the ore taken down to the shutes, through which it slides to the level of the furnaces. As we rode up, we found two villages of miners,—one of Mexicans, and one of Welch and Cornwall miners. The entrance to the mine was a great dark hole, through which you pass, and grope around for several thousand feet within the hill. A car brings up the ore; and under a long shed it is cleaned and assorted, and prepared for

the furnaces. Down about seven hundred feet below the old mine, another opening has been made; and very rich ore is now taken out. There is, of course, much fine ore which is very rich, but which is too fine to pack: this is mixed with clay, made into adobe bricks; and, in this shape, they furnish a good lining for the furnace, and the quicksilver is saved.

The houses perched about on the steep mountain-sides looked as if they would tumble down from their elevated positions; but still the children playing about all looked happy, and the schoolhouse (which the company established, and where they maintain a good school) showed that they were being taught lessons which would be of advantage when they descended from their mountain-homes, down among men dwelling in the valleys and on the plains. A well-stocked store supplies the miners; and those whom we saw at work, and going to take their turn in the mines, were a hardy set of fellows. The whole property told of *present* good management; and I could see no reason why some of the dreams of the early owners had not been realized: but every such large property is the prey of those who work alone for their own interests, unmindful of the stockholders, who, as a rule in such companies, are only consulted or troubled when a new assessment is to be called for.

The property owned by the company is large; its landed estate is extensive, its machinery costly; and it would seem that they possessed every appliance for making the ore yield large returns in cash to the treasury to be divided among the holders of the stock.

We were very much pleased with our visit, and instructed in seeing the processes employed, besides enjoying a ride which is not often surpassed in beauty of scenery and fine trees along the roadway.

We turned, the next morning, our face again towards the city near the Golden Gate; and at ten o'clock we were breakfasting in the grand dining-room of the Lick House.

CHAPTER XIX.

To the Yo-Semite.—The Routes.—Merced City and the New Hotel.—The Ride to Mariposa.—What we saw and heard.—White and Hatch's Hotel.—Clark's Ranche.—Capt. John.—The Mariposa Grove of Big Trees.—How you reach it, and the Size of the Trees.—Fashionable People Travelling.

As is well known, the chief point of interest to be visited in California is the

YO-SEMITE VALLEY.

“How shall we go?” is the question asked by the tourist as soon as he begins to talk of the valley. There are agents for the different routes, who, of course, decry all save their own. For two weeks we looked over the routes, talked with those who almost daily returned; and we will give the result of our labor. The time of making the trip is very important; for, if you desire to see the waterfalls in their glory, you must go in flood-time, that is, just at the breaking-up of the snows, when

every thing seems turned to water: for, be it remembered, the waterfalls of the Yo-Semite are made from streams swollen by the melting snows, and many of them dry up entirely; while all become only a mere trickling compared with their volume at flood-time. If the waterfalls are a secondary consideration, then it is much more easy and pleasant to make the journey across the mountains later in the season.

The Yo-Semite is situated a little south of east from San Francisco, and, in a direct course, is distant a hundred and fifty-five miles; but to reach the valley we must travel at least two hundred and fifty miles.

The three routes are denominated "Merced and Mariposa," "Coulterville," and "Chinese Camp and Big-oak Flat." By the first, we have the great Mariposa Grove of Big Trees within some four miles of the line; by the second, the shortest saddle-ride; and, by the latter, we visit the Calaveras Grove.

Of one fact there can be no doubt; that is, that you should go into the valley on one side, and out of it upon the other; for thus you have new and inspiring scenery and grand views while accomplishing a journey, which, of necessity, is very hard and tiresome. As we wanted to see the "big trees" in the Mariposa Grove, we chose to enter the valley by way of Clark's, or the first route, and return by the way of Coulterville; although,

if time had permitted, we should have taken the other route, and visited the Calaveras Grove upon our way.

On the afternoon of the 6th of June, we left the city for our journey, taking along with us only such luggage as seemed necessary, and arranging our dress "to rough it." The train leaves the city at four, P.M., and reaches Lathrop, on the line to Sacramento, at about half-past eight, where we change cars, and start up the San Joaquin Valley to Merced City, which lies some fifty miles away. After a slow and tedious ride, we reached the *unfinished* city and the *unfinished* hotel, named "El Capitan." The genial landlord — Bloss by name — gave us the very best accommodations that he could, under the circumstances, even sleeping-cars being drawn up on the side-track to accommodate the guests; and we could only say, "Good-night!" and "turn in." Our unfurnished room, and the excessively hot, oppressive atmosphere, were not very inviting surroundings for our first night on our way; but we resolved not to complain of any *reasonable* hardship, leaving that to the young city belles, of whom you always meet more than a complement for comfort upon such expeditions.

The morning found us early looking about the city. Four months ago, there was not a house in sight from the spot where now is the hotel. This great house was erected by the Central Pacific Railroad Company to ac-

commodate the travel to the Yo-Semite. It is four stories high, a hundred and fifteen by forty feet, with two wings and broad piazzas, and to be furnished with all modern improvements. It will cost rising seventy-five thousand dollars ; and Mr. Bloss will add the furniture at an expense to him of some forty thousand dollars more. The railroad offices are all in the building ; and, so far as the work has progressed, it is very creditable to the enterprise of its projectors. Merced City is made up of three large livery-stables, a dozen saloons, and any number of unoccupied city lots. It is the centre of many mining villages, as Mariposa, Bear Valley, Hopeton, and many others, to nearly all of which daily lines of stages start, and from which they arrive, which, together with the many carriages which depart for and arrive from the Yo-Semite, make lively times at morning and evening about the hotel. If Mr. Bloss could do as well as he did under the circumstances, we are sure, that, by this time, he is able to entertain guests in a manner leaving little to be desired.

There are in the city about three hundred people ; and one good citizen who had taken up his residence here persisted in telling us of this “pup of city,” and assured us, that, when it got grown, it would astonish us with its “barking and growling.”

We should strongly advise tourists to arrange for a

private conveyance from here ; for the stages are often overcrowded, go by longer roads to leave the mail, and are not so comfortable in any respect.

At the appointed time, seven o'clock, we were off for the foot-hills, which in the distance bounded the great valley of the San Joaquin on the east.

For about twenty miles, we drive through vast fields of wheat and barley, covering the earth on either side as far as the eye reaches, only relieved here and there by the cabin of the rancher, or a little growth of timber along the banks of some creek. The grain, which is now ripened, or nearly so, looks fine ; and the fields which have been "headed" are yielding immense crops,—by far greater than any previous year in this valley.

Beyond these grain-fields we strike into the gravelly country which lies at the entrance to the foot-hills,—vast rolling fields, which Nature has made the home of the sheep and goat ; and now these great pastures are well stocked with these wool-producing animals. This region gives us a good idea of the foot-hills of the Sierra Nevadas.

During our ride, our "knight of the whip" has grown familiar, aided, no doubt, by the contents of a small bottle which he occasionally takes from his pocket, and, with his teeth drawing the cork, manages to keep his team in motion, and at the same time empty

some of the liquid into his mouth. He told his history,—his life upon the “box,” and the ups and downs which had checkered his career. Of the people who lived at the ranches he told us, some of the stories being “too big;” but, as we were in the land of big things, no wonder a stage-driver’s yarns (never lacking in wonders) should here partake of the general character of immense size. He with grave face informed us that the region through which we were passing was exceedingly healthy. “Die!” said he. “No one out here would ever die, if it wasn’t for whiskey and doctors.” He, not liking the last mode, had evidently adopted the first-mentioned course to end his days within the time appointed for mortals.

But now we are well in among the hills; and our attention is attracted by the great ledges of sandstone which project from the surface, and often rise in the form of spires or domes, or in fantastic shapes, giving to the landscape peculiar beauty. This change is very agreeable; for the fields of ripening grain become very tiresome to the eye, as do the great sheep-pastures, relieved only by the moving herds. There is another rock-formation which is worthy of note. The strata of slate stand at almost right angles to the underlying sandstone, and crop out of the ground in shape like grave-stones, covering the sides of the hills with a

seeming "city of the dead." The rock-croppings above the surface are called "buttes;" and they add also the color of the rock,—as red buttes, white buttes, &c. Some trees, *Pinus Sabiniana*, are seen, and acres of the chaparral.

Our first stop was at Indian Gulch, a mining-camp, once quite a settlement; but, as gold has become scarce, it has dwindled down to a little, dilapidated village of a few Italians and a few negroes.

A mile or so beyond this village, we enter the great Mariposa Estate, owned by a company bearing that name; and whose stock, by its fluctuations, has ruined more men, and has especially been the cause of the fall of more bank-officers, than any other in the long list of those "doubtful commodities" which they sell to the bulls and the bears who frequent Wall and other streets.

We take our course over the road through the estate, and are very much interested in seeing the Chinamen mining in the gulches. Stopping at one of the gulches, we got out of the stage to observe the operation. They erect a little sluiceway (as I before described); and into this they shovel the dirt, and wash away the coarser portion: that which is left is then put into a "pan," as they call it, which is filled with water; and, by a peculiar twisting of it, the contents are made to revolve, and gradually the specific gravity of the gold causes it to settle to the

bottom, and the refuse dirt to go over the side of the pan. Here we also saw the "rocker," one of the utensils used in mining, which has never been improved upon, and is to-day just as it was in the early days of California placer-mining. It takes the place of a sluice, and is more economical in the use of water. The chief mining on the Mariposa Estate is, however, quartz ; but now all the stamp-mills are still.

But just a little way on, our driver says, "Don't you see those grave-stones ?" — "Yes," we said. "W-a-a-l, now I tell you, you can always know you are coming to a town when you see them things: they always stand up first to let you know they have got a graveyard. I have seen the same thing East; and I tell you I have known 'um out here, when they laid out a new town, to kill a man to start a graveyard ; for you see, here nobody dies of his own accord."

But, before we had really digested the "graveyard story," we entered the old town of Mariposa,—once a thriving city, now a crumbling, ruined place. All the people of standing have left here ; and only a few shop and saloon keepers, and a large number of miners, and, I was told, some desperadoes, remain here. It is a sad story which the city tells of hopes blasted, of fortunes lost, and of glory forever gone.

A stay of an hour, and we were off again, in a moun-

tain wagon drawn by two horses, for White and Hatch's, where we were to stay over night. Just as soon as we stepped upon the piazza, we were assured of a good supper and a clean bed ; for the marks of a Yankee house-keeper were "hung upon the outer walls." We were not long in finding out that these people came here from Maine, erected a saw-mill, and went into the lumber business, some twelve years ago. They entertained a few travellers at first ; but, the tourists to the mountains increasing, they were forced to enlarge their little house ; and, by successive additions, they have now quite a "tavern," where you are so kindly received by Mrs. Hatch, who spreads for you such a table of good things that Yankees are satisfied ; and, when they are pleased, who in the world is left to find fault ?

A refreshing sleep prepared us for an early start ; and by a delightful drive among the hills, under the shade of huge pines, we are taken to Clark's. The road leaves White's and Hatch's at an elevation of three thousand feet, and ascends Chowchilla Creek, and crosses the divide at an elevation of fifty-eight hundred feet, between the waters of this creek and the Merced. When we reach Clark's, we are at an elevation of forty-one hundred feet, and on the banks of the South Merced River, which, with swift current, flows by near the house. The river is now at flood, some seventy-five to eighty feet wide,

clear as crystal, and by its rocky bed is tossed in foam as it speeds along to join the north fork in the Yo-Semite Valley.

Mr. Galen Clark, from whom this ranch is named, and who now lives to enjoy the fruits of his labor, is one of the pioneers of the section, who came into the country as early as 1853, and in 1855 settled here. His first tavern was a tent, the ground his table, and tin plates served for China; and at night the camp-fire was lighted, and around it they wrapped themselves in blankets, and slept. In a year or two he built a log-cabin, had three-legged stools and a pine table, with a tent for a dormitory, which in those days were luxuries indeed. The increase of travel forced him to erect larger and more substantial buildings; and to-day they have good accommodations. Mr. Clark, in his early days, was a great hunter, and is still a *dead-shot* with his rifle. He is plain in his habits, a lover of nature, and preserves the custom of nightly lighting the camp-fire, and gathering his friends about it to talk over "the days that are gone." In 1870 Mr. Edwin Moore came to the ranch, and entered into a co-partnership with Mr. Clark, and now has general management of the business; and the hearty hospitality which he and the ladies of the house dispense make all feel at home.

During the afternoon of the day of our arrival, there

came galloping into the yard an old Indian, with a white silk handkerchief about his head, pantaloons of great size and white in color, a flannel blouse, and a striped shirt. His horse was a mustang, and upon his back rested a real Mexican saddle. Dismounting, he walked with the gait of age directly to the piazza where we were sitting, and greeted Mr. Clark with the utmost cordiality. Mr. Clark addressed him as Capt. John. After a little conversation in his broken English and Spanish, Mr. Clark told us that he was a chief of the once-powerful tribe of Indians called "Fresno," was on his way for a visit across the mountains, and over to Mono Lake. After much difficulty, he was made to understand that we lived about three thousand miles away, and "on the other ocean;" and, with a face full of animation, the old man said, "Whew! too muchy far, old Injun." No, indeed: neither he nor any of his tribe will ever see that other ocean of which their soothsayers had told them around the council-fires. They are fast passing away, and soon they will be numbered with their brothers of the Atlantic; while the tribes in the great middle ground will survive only a few years longer the calamities which have overtaken the red men, dwellers by either ocean.

But to Capt. John attaches peculiar interest, as he was one of the Indians who guided the first white men into the

valley. The Indians in 1850 being very troublesome, and having a stronghold far up the mountains, a company, under command of Capt. Boling, started in pursuit of them, and under the guidance of friendly Indians, with their chief, Te-na-ya, were taken into the wonderful valley; and for the first time white men looked upon the grandest scenery which the world to-day knows.

As long as I staid at Clark's, Capt. John and I were good friends; and he would often exclaim, "I sarva you," which means that he could understand me. At night, when the Indians of the little settlement near the house returned with their trout, and sold them to Mr. Clark, reserving only enough for supper, we visited their camp, and observed their mode of cooking them. A hole is dug in the ground, and a fire made therein; and, while the coals are glowing, they are raked away, the fish put in and covered with them, and thus cooked. From the meal made from dried acorns, they make a kind of paste, which they call bread, and which, from a water-tight basket, they eat with their fingers. Capt. John urged us so hard to eat with them, that we tried the fish, and found them delicious; but the paste we had to omit. Our table was the earth; our knives and forks were our fingers; and we sat in a reclining position on our table, the whole lighted up by the fire, which was blazing near by. As they ate, they grunted at each other; their language being a succession of grunts.

Next day, although Sunday, it was arranged that our party should visit the

MARIPOSA GROVE OF BIG TREES.

The grove is reached over a trail of some four miles; but the "rounds" to both groups of trees, and return, make a horseback ride of a little more than twelve miles. Our horses and mules, bridled and saddled, were led up by eight o'clock; and the selecting and assigning of animals immediately began. The ladies first were mounted for the trip. For me, I preferred a mule, as being surer footed, and, looking among them, I selected one, not the best-looking, but well built, and with an intelligent eye. Jumping upon his back, he turned his *queer* countenance towards me, and for some minutes seemed to *consider*, and then whirled round several times to show *that gait*, and then looked at me again. Coaxing with a willow-twig seemed to let him know best the way I desired him to behave; and after a few minutes he yielded, and ever after was "as good a mule as mule could be." For my whole stay in the mountains I kept him, called him *Aesculapius*, treated him kindly, rested and fed him; and, were I to go again in that region, I should look for *that* mule, which I trust will ever be well used.

I noticed one thing,—that those who bragged most of their horsemanship made the poorest show when they were upon the animals. One *poor child* who talked loudly of his experience, and who tried to be very *nice*, came to grief, sprawled in the dirt; for his mule persisted in not being led in a *city way*. No one pitied him, for he had put away all pity by his course. The ladies also showed the same fact,—that much bragging, or even Eastern horsewomanship, don't always succeed in conquering a mustang pony or a mountain mule.

But, all ready! and we are off over the trail for those wonders in the vegetable world. But, if we had not read of those *bigger* trees, we should have been satisfied with those about us; the hotel standing in a grove of trees from six to twelve feet in circumference, and from a hundred and twenty-five to a hundred and seventy-five feet high, mostly pines.

The trail is a very pleasant one, being up the side of a hill, under the shade of those magnificent great pines and spruces which cover the Sierras far up their sides. About an hour and a half was occupied in reaching the “Upper Grove,” as it is called. These groups of big trees lie at an elevation of about fifty-five hundred feet above sea-level, but still in a little valley, a sort of depression in the side of a ridge.

Congress has made a grant of two miles square, and

clared it a national park, which takes in the two distinct groves of these trees. The Upper Grove contains just three hundred and sixty-five of this species, over one foot in diameter; while in the Lower Grove, which is situated to the south-west of the first mentioned, the trees are more scattered, and less in number.

For a long time, a learned discussion was carried on both in France and England as to the name to be given this tree; but now, by consent of all, it is named *Sequoia gigantea*. It is undoubtedly a twin-brother of the red-wood (*Sequoia sempervirens*), of which the major part of the trees in the great Sierra forests is composed.

The trees have signs placed upon them, giving each a name, as Grant, Lincoln, Lesseps, the Twins, the Sisters, Pluto's Chimney, &c., but which have not, and should not, become popular. Spare the old giants of the forest such indignities! The highest tree in this grove is two hundred and seventy-two feet; the highest in the Calaveras Grove is three hundred and twenty-five feet; while the largest known tree in circumference in the world is here in the Lower Grove; and there are in all, in the two groups, a hundred and twenty-five trees, each over forty feet around.

The trees which are found intermingled with the big trees are the pitch and sugar pine, the Douglas spruce and white fir, together with the bastard cedar, which nearly resembles the Sequoia.

The great tree in the southern portion of the grove is the one known as the "Grisly Giant," which is ninety-three feet seven inches in circumference at the ground, and, eleven feet above, is sixty-four feet three inches. It is at the base rising thirty-one feet in diameter. Its branches are as large as our largest elms, many being fully six feet in diameter. Desiring to take home with me something which would show the size of this tree, with the assistance of the two guides, we stretched a cord around the tree as nearly as we could five feet from the ground, making no allowance for the decrease in size by the burning on one side; and this cord (which I now have, as well as the measurements of two others) measures just ninety-two feet eight inches in length. The age of this tree is variously estimated; but it is safe to say (from the data of those which have fallen) that it is fifteen hundred years old. Through a fallen trunk, which was hollowed by decay and fire, we rode on mule-back; and into another tree, still growing, but into whose side the fire had worked, we rode, turned our mule around, and rode out again. There was one where the fire had made a rent directly through the tree, large enough for us to ride through, and it was still growing, its top showing no signs of decay. These are great vegetable wonders; and probably no trees ever found have created so much comment as these, all the

learned journals of the world having given them full descriptions and reviews.

We lunched amid these great giants of the mountain forests, and let our thoughts contemplate the wonders of Nature, thankful that we had been privileged to behold them, and re-assured that Nature proved the existence of a God.

We returned somewhat tired with our first experience in mule-back riding over a mountain trail ; but, nevertheless, the lighting of the camp-fire found me with the ranchers, listening to their stories. Passing the door of the parlor later in the evening, a city belle said to me, "I should not think you would like to stay with those rough men." Surprised at first at the extreme ignorance shown by this lady,—only a specimen of the great majority who make such trips with their "dear papas,"—I could only tell her that Mr. Clark was a gentleman ; that his son was a recent graduate of Yale College ; that Mr. Moore was a man of great information ; that I had derived much knowledge from the conversation ; and, by mingling with them, I had learned their mode of life. Not satisfied, she again replied, "I did not come out here to associate with common people." This is the estimate which many place upon a person,—his dress. Fashionably-cut clothes go, with *fashionable* people, farther than brains. If a person can travel

through our Great West, and associate as he ought with the people, and have any respect for *fashionable* pretensions afterwards, I deem him beyond hope ; for here the governor of the State dresses in homespun, and the sturdy ranchers and men of business forget the color of their shirt, if it be only clean. I could not help this tirade against *fashionable* women ; for they gave me more annoyance than all else upon my trip, and often created ill feelings, and wounded the sensitive natures of the few noble women, lovers of nature, who were along with the party, or whom we met at the stopping-places.

To-morrow early we shall start for the valley, leaving at seven o'clock ; and, as the trail is nigh thirty miles, we shall not reach the valley before sunset.

CHAPTER XX.

The Trail from Clark's into the Yo-Semite. — The Mountain Peaks. — Inspiration Point. — The Yo-Semite Fall.

WE made an early start from Clark's for our long saddle-ride into the valley. There was a large number to go; and every horse and mule was brought into requisition. By a bridge we cross the South Fork of the Merced River; and by a trail, ascending very rapidly, we reach the plateau, which lies between the main river and the branch mentioned. A journey of six miles brings us to a creek named Alder, along which our trail lies to its source in a great mountain-meadow. We have now reached an altitude of seventy-one hundred feet above the level of the sea, or nearly a thousand feet higher than Mt. Washington, or a mile and a half above tide-water. To know just what a mountain-trail is you must follow one; but some idea can be had by imagining the roughest road you ever went over, and by far more crooked than any cow-path in the old pastures, and then narrow it down to a way just wide enough for

one animal to pass, and then set this path at an inclination little less than perpendicular, and then across it throw occasionally a snow-drift ten feet deep, and you can know something of the trail which we are going over to-day (June 10). Up here in the mountains it is early spring; the snows are melting; the streams are swollen; and, in the spots where the snows are gone, the grass is just springing up. There must have been an immense quantity of snow here; for the drifts of snow, packed hard enough for us to pass over the crust, are from six to ten feet in depth; and the ground in the shadow of rocks and trees is still "clothed in the white." A trail is peculiar: it follows the path first struck out, even though farther, and takes great pains to go a long way around a fallen tree or a rock, when the labor of a few hours would open a new path; but still there is something fascinating in following the windings of our narrow road.

The character of the trees has changed; and now we have those which delight in these elevated places, as *Pinus contorta*, *Picea grandis*, *Picea amabilis*: of these the forests of the high Sierras are formed. The early flowers, too, are blossoming, and opening their bright eyes to the sun; but it is too early in the season for the floral beauties which later cover the ground, and make you forget the frosts and the snows.

By one o'clock we reached a place called "Mountain View Meadow,"—a great basin, as it were, in the mountains, whose lofty peaks rise on every side, covered with snow. We are now in the high Sierras, and are brought face to face with the grandest mountain-range on the continent.

We lunch at the Mountain View House, a pretentious name for a log-cabin and one small frame house, with partitions made of cotton cloth. The property is owned by one Peragoy, who came from Baltimore to the Mariposa country to dig gold. Stock-raising takes him into this meadow during each summer; and Mrs. Peragoy takes charge of lunching travellers to and from the valley, and, that she does it well, the many praises from the company told full well. To her the mountains have no charm, the great meadow in which she lives no beauty; but a *well-set* and *well-loaded* table, with *well-paying* guests around it, who call loudly for *extras*, is to her the grandest sight upon which her eyes can rest.

From Peragoy's the trails diverge; one entering the valley by Inspiration, and the other by Glacier Point. The country between is rolling; now rising in sharp ridges, and now settling back into a pretty meadow, where the grass is springing up, offering abundant food for cattle during the few weeks that they are free from snows. In crossing these meadows, now filled with sur-

face water, often our mule would mire to his knees; and, in his efforts to get out, the mud would fly at a great rate, or, in crossing a creek which seemed shallow, down he would sink, and our feet would find water, to our discomfort. The highest point which we reach upon the trail is seven thousand four hundred feet above the sea ; and at this altitude, of course, it is impossible to walk or run at any speed ; and, until one has become accustomed to it, care should be taken not to exert one's self, as evil results often follow.

But we are now catching glimpses of the huge walls and towering peaks which rise upon the farther side of the valley ; and a mile or so takes us to that famed spot,

INSPIRATION POINT.

Here we get our first view of a portion of the valley. Dismounting, we walk out upon the jutting rocks ; and then opens to our view the enchanting, awe-inspiring scene. The sun is just sinking behind the huge granite hills which rise in the west : in front of us, seemingly but a little way off, but really more than a mile, the Bridal Veil throws its white, flowing robes over the face of Po-ho-no, and, falling six hundred and thirty feet from the top of the rock to the river, breaks into a great cloud of spray. We are far above this fall. On

our left rises the huge form of El Capitan, almost perpendicularly, thirty-three hundred feet above the level of the valley. This rock the Indians called Tu-tock-a-mu-la, or the great chief of the valley. Away in the distance, where the valley seems to close up, we see the North and South Dome, the latter of which rises nearly five thousand feet above the valley; while away up among the very clouds we see the great peaks called Lyell and King, and Cloud's Rest, and many more, but which, from this point, appear like one great mountain, up the sides of which you can climb into and above the clouds, up to those shining orbs, the stars. Below us, a small part of the valley level appears, dotted over with great trees, and through which a river flows, its waters sparkling in the sun.

To attempt to describe the grandeur of this scene would be folly; to tell of the feelings of awe, of humility, of reverence, which are here aroused, is all that can be done. He who tries to believe there is no God is here at once converted in the twinkling of an eye; and his feelings of reverence and veneration, blended with love and beauty, force him to a worship at once pure and creedless.

Enraptured by the scene, we all lingered long after our guides told us that darkness would come on before we reached the hotel. But, before we start down the

precipitous side of this mountain, let us give a general idea of this wonderful valley.

The valley is about six miles long by from half a mile to a mile and a half in width; its area is nearly level; and its sides rise almost perpendicularly from the surface; the rock being solid granite of the finest grain. It is sunken almost a mile below the general level of the mountain region just around it; and the general direction of this depression is north-east by east, until near its upper end, where it makes a sharp turn, and divides into three cañons, up through which wild gorges we can climb to the higher Sierras beyond.

Prof. Whitney, State geologist of California, calls the valley "a gigantic trough," and sums up its characteristics as follows: "The principal features of the Yo-Semite, and those by which it is distinguished from all known valleys, are, first, the near approach to verticality of its walls; second, their great height, not only absolutely, but as compared with the width of the valley itself; and, finally, the very small amount of *talus*, or *débris*, at the base of these gigantic cliffs."

We will start down the trail; and we must make a steep climb of twenty-nine hundred and seventy-feet before reaching the bottom of the valley. At each step of the way, we have new and inspiring views presented to us. A little way down, we have the spot

where Bierstadt made his sketches for his great picture, and a little off the trail, where Hill found the view which to him seemed grandest, and which he has transferred to canvas not only in outline, but in spirit. As we approach nearer El Capitan, we are impressed with its massiveness; and, as it stands out into the valley, it seems to present a sharp edge of granite, but really very wide.

At points, the trail is very steep, and, of course, some care must be taken to avoid accident; for although guides say there is no danger, still a misstep of your animal would surely cause serious trouble.

On our right is the Bridal Veil Falls, which now we begin to look up to, instead of down upon it, as we did at Inspiration Point. On our left we have a fall called Virgin's Tear, a little more than a thousand feet high; but this fall dries up as the season advances. We pass in our journey Cathedral Rock, twenty-six hundred and sixty feet high; the Spires, which are distinct granite columns, which rise, just as their names indicate, some five hundred feet, and, as the sun brings out their lines and forms, they are of rare beauty. On the other side are those rocks, rising one over and above the other, called by the Indians *Pom-pom-pa-sus*, or "Leaping Frog Rocks," from their resemblance to three frogs, but which are named in the survey "The Three

Brothers," the highest of which rises thirty-eight hundred and thirty feet high. As we approached the Bridal Veil, its beauty seemed increased; and as the wind swayed its mass of foaming spray, losing itself among the tall trees which grow at its base, it seemed like the flowing of a long white veil. There seemed to be a dozen streams running from this fall into the Merced; and, as we forded some of them, our feet dragged through the water, it was so deep. Leaving the rest of the party, some of us rode up among the trees, and got quite near the base of the fall, at least where the spray came over us like a shower of rain. It was a weird spot just as darkness came on; and the sound of the wind striking the column of water made it all the more awful. The Indians as they came here gave to the fall the name of "The Spirit of the Night Wind," in their language Po-ho-no.

A mile brought us to the first hotel, Leidig's; and a little farther on we came to Black's, where we had determined to stay. The roar of the great Yo-Semite fall was heard; and in the moonlight we could see the spray. To the back of the hotel the great tower-like rock rises, which is called "The Sentinel Rock;" and the house where we are has the name, "New Sentinel Hotel."

Too tired to eat, and with mind crowded full of the

incidents of the day, we soon retired, to be lulled to sleep by the roar of the "Great Grisly Bear," as the Indians called the great waterfall just on the opposite side of the valley.

Before the sun rose, we were out watching for its first beams in the valley; and we were amply repaid for our early start. In the valley it was quite dark: but the spires and pinnacles of the surrounding mountains were gilded with the morning sun; and, as he rose higher, his beams glided over the rocks, and gradually slid down their sides, bringing out in bold relief their forms marked and scarred by time, until at last his full rays burst in glory upon the whole valley, causing rocks and trees and waterfalls to shine and sparkle in his beams. Nothing could be more beautiful; and those who persisted in remaining in bed till the breakfast-bell rang lost one of the most beautiful views of Nature which I enjoyed in the valley.

In the early morning, or just at sunset, we have the best view of the

YO-SEMITÉ FALL.

This is probably the greatest attraction in all the valley, and in height (two thousand six hundred and thirty-four feet) surpasses all other known waterfalls in the world with like volume of water. It is formed by

a creek of the same name, which heads ten miles away, in Mount Hoffman, and is fed by melting snows. It has its bed in solid granite, and, where it pours over the rock, is from twenty to forty feet in width, and from two to three feet in depth, with a current of a mile an hour. Where it pours over, the granite is polished so smooth, that it is dangerous to step upon it. The fall is divided into three parts; the first, a vertical descent of fifteen hundred feet, where it strikes upon a shelf, which makes back nearly two thousand feet from the front of the lower cliff; and, by a series of cascades, it finds its way down (the descent being, in a perpendicular, six hundred and twenty-six feet) to the edge of the cliff, where it makes a final plunge upon a pile of *débris*, and by rivulets is carried into the Merced. The volume of water is too great to be broken by the fall; and the wind has such an effect upon it, that it sways the foaming mass, which widens out, before it reaches the shelf, to some three hundred feet at flood-time. As it tumbles from the cliff, it falls in rocket-like masses, and seems to whirl; by which air is collected within the mass, and, falling upon the flattened shelf of granite, causes a sound like the report of a cannon. The view of this fall varies very much in different positions: in some, it appears like one continuous fall without break; in another, the cascades appear between

the two perpendicular falls; and from any point, whether near, or across the valley (here more than a mile in width), the sight is grand and imposing, and far more enchanting than Niagara.

By this time our breakfast was ready, and we were *ready*, also, to do it justice after our tramp. Our animals are brought up; and as the name, Mirror Lake, is so bewitching, it was voted to go there: and so we are off. The trail brings us soon to the centre of business,—Hutchings's Hotel (kept by Hutchings, who lectured in in the east last winter), Smith's Cosmopolitan Saloon, a store, the photographic gallery of Hazeltine, the telegraph-office, and the new dormitory erected by Mr. Hutchings. These structures are somewhat rude; and all elaboration is omitted, as all the material of which they are built, and with which they are furnished, was brought over upon pack-mules. Near Hutchings's we cross the Merced upon a bridge which ought to span the river; but the water is so high, that, when we get at the end of the bridge, we are only across the main channel, and our animals go leg-deep in the water across a great meadow. Soon the valley narrows between towering mountains. On the left we have the Royal Arches, Washington Column, and that great dome-shaped mass of granite rock, called the North Dome. At this point the valley divides into three cañons,—Tenaya, through

which a branch of the Merced of that name flows; the Nevada, or middle one, through which the main Merced flows; and the right hand, or that to the south-west, the Illilouette, through which the South Fork flows.

A little way up the Tenaya, we come to a great mass of broken granite rock, evidently the *moraine* of a glacier; and, climbing over this, we find that it has dammed up some of the waters of the river; and this they call "Mirror Lake." At the proper time of the day, the reflections in the water are undoubtedly fine; but to call it a lake is a misnomer, and the great number of mosquitoes make it very uncomfortable staying around in those parts. Mirror Lake is a humbug, and don't pay for the time and trouble of getting to it. So it is with every thing. An attractive name will take with the many, who leave spots of rare beauty unnoticed, because no one has given them *beautiful* names.

On our way we visited a ranchero of Merced Indians, and had a chance to see the squaws pounding acorns into meal, and some of the men, who, like other *lords* of the earth, deem it a disgrace to work, but are willing to be supported by others.

In the afternoon we strolled about by ourselves, and found more satisfaction and comfort. We met Joaquin Miller, the poet of the Sierras, who has the credit of first making Englishmen acquainted with the grand

mountains, the fruitful plains, and the lovely valleys, of California. Many Eastern people, too, were stopping in the valley at the three hotels. We also visited the justly celebrated saloon of Mr. John Smith; and it is a worthy example of pluck.

It stands in salient contrast with all the other accommodations in this valley. Mr. Smith first visited the valley some three years ago, and, with a far-sightedness which always compels success, perceived the future to which the Yo-Semite was destined, and resolved to anticipate its needs. To understand fully the magnitude of the undertaking, it must be borne in mind that every thing for building (save the roughest lumber), all supplies of every kind, must be packed into the valley upon mules, over a mountain-trail of ten miles at the very least. But Smith was a man who, the more difficulties, the more the energy he summoned to his aid. To resolve with him was to act: so up went the building, over came furniture, supplies, even city luxuries, into a valley where before only the rudest conveniences were known.

Late in the evening we again reached our hotel, satisfied with one day's full enjoyment.

And I will close this chapter by adding a story which has credence in the valley.

Along came a tall, gaunt-looking Yankee chap, and

offered his services to the proprietor of the mule-trains as guide. Although he had never been in the valley, he assured them that his experience in the mountains would enable him to follow the trail, and his study of the map of the Yo-Semite would make him familiar with the points of interest. Pete, for that is his name, talked so plausibly, that at length a bargain was struck ; and he started off with a party. Good judgment took them safely into the valley ; and Pete had a ready answer to all questions. Coming to those three great rocks which I have described as looking like three frogs, some of the party inquired their name.

"Them are the Missouri Sisters," said Pete with an air of confidence ; "and ain't them handsome ones ?"

The party reached Hutchings's all right ; and, after tea, Mr. Hutchings proposed a walk, and Pete accompanied them.

Mr. Hutchings was discoursing upon the beauties of the grand scenery, when presently his eye caught these three huge rocks, and, calling the attention of the persons to them said, "Those three huge rocks which lie one upon another, we call the 'Three Brothers.'" One of the party in amazement looked up, and cried, "Why, Pete, you told us they were the '*Missouri Sisters.*'" Pete, ever ready, answered, "Hang it ! no one can keep track of Hutchings's names ; for he changes them every week."

And these popular names do change, and often have no significance at all. How much better it would have been to have preserved the old Indian names which had been handed down from generation to generation, and each of which had some appropriateness! And even the word "Yo-Semite," which is retained, is Anglicized; for the Indian pronounces it "*Ho-ham-e-ta*," and it signifies the most awful thing to him,—a great grizzly bear.

CHAPTER XXI.

Nevada Cañon. — Vernal and Nevada Falls. — The Flowers, Shrubs, and Trees of the Valley. — The Trail up to Gentry's. — Crane Flat and South Tuolumne Grove of Big Trees. — The Stage-Ride back through Coulterville to Merced.

WE again rose early, and enjoyed a tramp among the grand old trees to the foot of some of those towering rocks. Their great height is best appreciated by climbing up upon the *débris* to their face, and then looking up towards the blue sky. Long before the *party* (for you have to go in troupes, under the charge of guides) was ready, I was upon that mule, *Æsculapius*, and was off to see the reflections in the river. The extreme clearness of the water, its absolute quiet as it spreads out over the meadows, together with the great clearness of the atmosphere, give to these reflections peculiar beauty and character. The fine photographs made by Watkins of San Francisco reproduce these effects in great truthfulness.

When the rest of the party came up, we had wandered some distance up the trail which takes us to

VERNAL AND NEVADA FALLS,

which are among the most pleasing of all the waterfalls.

We leave the valley proper at the point where the three cañons begin. Our way lies up the middle one, where flows the main river. The Merced, in coming from the high mountain-plateau above, down into the Yo-Semite, makes a descent of more than two thousand feet in two miles ; and, besides the roaring cascades, we have the two falls mentioned. We follow up the river, and, after a ride of a mile or more, cross the Illilouette, which is quite a stream. Here we go over an immense deposit of huge angular granite blocks, which, undoubtedly, have been torn from the mountains by some great ice-floe. The trail rises very rapidly, and follows the tearing and surging river, which you perceive, from the inclination of its bed, must flow at a fearful rate. We soon arrived at the first fall, which has received the popular name of Vernal, but which the Indians called *Pi-wy-ack*, or Sparkling Water,— a name which has some appropriateness. The height of the fall is four hundred feet, as nearly as can be measured ; for the great body of water which flows over this

squarely-cut “step,” as it were in the cañon, is broken into spray, which rises nearly half as high as the fall. As the sun shines upon this fall, beautiful rainbows are produced, which give to the whole scene exquisite beauty. One loves to linger about this spot, climbing up the rocks within the spray which is thrown by the fall on every side.

Around the falls, where the moisture covers the rocks, cryptogamous plants thrive; and here a collection of mosses could be made, which would be very valuable in this class of plants.

For a little more than two miles, by a very steep trail, along a sharp ridge, we make our way up to Nevada Fall. This is a grand sight, the volume of water being very large; and by a projecting rock, just at the edge of the lip of the fall, a whirling motion is given to the central volume of water; and, as it falls upon *talus* or *débris* at the foot, the spray is thrown in all directions upon and among the great trees which grow near the foot of the fall. This fall is six hundred feet high; and the river between the falls descends three hundred feet.

To our left rises a huge mass of rock, which stands alone in its grandeur. It is about two thousand feet high, and has several names, but that generally adopted is “Cap of Liberty.” Two days before we visited the spot, a large slide took place, which levelled great trees,

filled up gorges, and, for many rods around, filled the air with flying stones ; and to-day we have every thing covered with granite-dust. Those who chanced to be here at the time described the scene as grand, yet producing extreme fear ; for the very rock where they were shook under their feet.

We have visited no more picturesque spots than those which we have found in Nevada cañon.

The little house where we lunch is kept by Albert Snow and his wife. As we approached the house, some one asked Mr. Snow if he knew where “Drew” was ; and he replied with the utmost deliberation, “I’ll be darned if I know !” and in a tone which only comes from Old Vermont. And so it was. Snow is a Yankee, and his wife is *Yankee too* ; and between them they succeed in making all people happy. Although there were more than a hundred at the little inn, Mrs. Snow gave all enough ; and those baked beans—“when shall I see the like again ?”-

Grace Greenwood (Mrs. Lippincott) was here, and many people from the East ; and all seemed to drink in the beauties and sublimity of the scenes about them.

Whoever visits the valley should find and become acquainted with John Muir, the scholar and enthusiast, who has seen more of the valley and adjacent country than any other white man. Visiting the valley about

four years ago, he became so much impressed with its grandeur and sublimity, that he returned home, closed up his business, and took up his permanent residence here; and for three years, now, he has "been reading this great book of nature," as he says; and he has well succeeded. Our evenings we spent in his little cabin; and one night the clock struck three in the morning before we ended what to me was a most instructive discussion.

The theory of the formation of the valley advanced by Whitney never did satisfy me; and, the more I observed, the more doubts arose; and from Mr. Muir facts enough were obtained to believe with Agassiz, that all such deep ploughed gorges have been made by immense ice-floes. It seems strange that so few of our scientific men have visited the valley, and made a *thorough* examination; for, so far, only superficial glances have been made, and crude theories are the result.

Another person must be seen, Mr. John Lamon, who was the first white man to take up a permanent residence in the valley. He came into the valley and selected a few acres as early as 1860; and, for a number of years, he has passed the entire year in the Yo-Semite. He has set out and cultivated a fine orchard of apple-trees, has a strawberry-patch, and raises some vegetables. He is an intelligent man.

The first house built in the valley was in 1856, and is still standing, and forms a part of Black's Hotel.

Mr. J. M. Hutchings first visited the valley in 1855; has lived in the valley since 1858; during the summer keeps his hotel, and seems bound to make money.

As is well known, Congress ceded this valley, and the territory back from the line of the rocks (one mile all around), to the State of California, to be forever preserved as a park. Commissioners were appointed, who began their work: but nothing has ever been done, as through the efforts, principally of Mr. Hutchings, all their plans have been thwarted; and he is continually urging the legislature and Congress to recognize his private claims, and give him in fee a hundred and sixty acres of that which God has intended for a nation's park. Remissness on the part of some one exists; for there should be a good carriage-road, at least, into the valley; good hotel accommodations should be had; and the price to be paid should be regulated. The State should move in the matter; and to this the great railroads which take tourists to the region should give their attention, that many of the inconveniences which now attend a journey to the valley may be removed.

There is a new trail opened this year up to Glacier Point, from which position a more extended view is obtained of the valley than from any point now acces-

sible with any reasonable exertion. Year by year new paths will be made ; and it is an impossibility to go upon any trail, or upon any of the mountains, without finding new views, and each with its own elements of beauty.

We were disappointed in not being able to reach Cloud's Rest and the higher Sierras, but the snows prevented ; and those who had attempted the ascents were of opinion that another week would pass before the snows would be packed hard enough to allow a passage over the crusts. It must be borne in mind, that, as the summer's sun rises over these mountains covered with snow, it warms the whole mass, the least frozen portion is turned into water, and the icy part is brought together in a mass so firmly packed, that it will sustain the weight of a mule and its rider. In this way, during late July and August, they go over beds of snow from ten to twenty feet in depth, and often even deeper, in both the Sierra Nevadas and the Rocky Mountains.

During our stay in the valley, we were every hour filled with the grandeur of the scenery ; and we could only regret when at last the morning came for our departure ; and we promised ourselves, that, should life and health permit, we would again visit this enchanting spot, and satiate ourselves with its glories.

To get out of the valley as we had proposed, we had to cross the river upon a flat-bottomed boat, called "The

Ferry," and make our way directly around the face of old El Capitan, the size of which was brought out by the time occupied in passing by it. By a very sharp grade we make our way up to the top of the hill ; the trail being about four miles and a half from Black's to the foot of the hill, and two miles and a half to the top, and the ascent equivalent to a vertical rise of more than three thousand feet.

Before we are out of the valley, let us pause and take a short view of the flora. The most pleasing flower was the great masses of what we call swamp-cheese (*Azalia occidentalis*), whose blossoms were both superb and deliciously fragrant. On the banks of the river we find *Hellenium grandiflorum*, whose flowers are yellow, and very showy. In a little pond, yellow pond-lilies are seen, and ferns in great variety, and, in the swampy meadows, some very peculiar and rare sedges, or coarse grasses.

The principal trees are alder (*Alnus viridis*), Douglas spruce (*Abies Douglasii*), Balm of Gilead poplar (*Populus balsamifera*), yellow pine (*Pinus ponderosa*), the cedar (*Libocedrus decurrens*).

Among the shrubs are the *Cornus Nuttallii*, *Rubus Nutkanus*, the manzanita (*Arctosta phylos glauca*), the wild rose (*Rosa blanda*).

In sandy places we have several varieties of pentste-

mon, the *Frangula Californica*, the brake (*Pteris aquilina*), the *Spraguea umbellata*, together with many smaller and less characteristic flowers and shrubs, covering the ground in patches.

While we have been botanizing, we have reached a point far up on our trail; and here, just in the worst place, we meet a party coming down into the valley. Here's a place for a compromise, for one of the parties has to turn back. After some parleying, it is left for the guides to decide; and all, save *a woman or two*, acquiesce. To add further to our difficulties, a little farther on we meet a drove of four wild cattle, being driven into the valley; and here is danger, which is averted by the quick movements of the young Mexican lad who is driving them, who spurs his horse out of the trail gets in ahead of the cattle, and drives them on the rocks above us, allowing us all to pass in safety. At length the top of the hill is reached, and we are at the house well known as Gentry's Station. But they have christened a new addition, "Alta-mont Hotel," which will do for *Eastern* tourists; but it will always be called Gentry's by the old ranchers and hunters of the region, as well as by the drivers who bring their stages to this point.

As we rode up to a tree, jumped from our mule, and tied *Æsculapius* for the last time, we could not resist

patting him on the head, and getting for him a bunch of hay. He had carried us many a mile, never had made a misstep, and generally had shown an obedient disposition. We trust that he may always have a kind master; and, as the guide led him with the others back towards the valley, our best wishes went with that mule.

This is the end of the carriage-road on this side of the mountain, whether you come by way of Coulterville or Big Oak Flat. After a good dinner, given us by Messrs. Gentry and Stockird, we were off upon our return-trip.

Seven miles brought us to Crane Flat. The village consists of a large barn, two frame houses, and a saloon; the latter being the popular resort of travellers. As our team was tired out by their drive the day before, we were obliged to stay over night; and Mrs. Ann Gobin, who keeps the inn while her husband looks after his fifteen thousand sheep, took good care of us with the accommodations which she had. Enough to eat there was; but, as the buildings have few partitions, you can perceive some difficulty in arranging beds for a large company. Although a place uninviting in every way, still we made up our minds to be satisfied; and finding a table in the saloon, which Mr. Hurst kindly allowed us to use, we penned one of our former chapters,

and made our notes for this. The table, no doubt, had been "put to baser uses," according to the custom of the country.

We were told that the South Tuolumne Grove of Big Trees was situated within a circuit of three miles of this place, and we resolved to see them: and, arranging with Master Gobin to conduct us in the morning, we retired early; for breakfast was announced to be ready at six, and the stage to be off at seven.

An uncommonly early start; and we were soon among the tall sugar-pines, which, in the gray light of morning, seemed like huge sentinels keeping watch of the surrounding hills. To add to the interest of our walk, just as we entered the forest where the Sequoia were, our guide sang out, "Keep this way! for there's a grizzly's hole;" and, not feeling like encountering one of these fellows, we did "keep this way" in good earnest. Wouldn't you have done the same?

My tramp, although a hard one, amply repaid me. The trees stand upon the northerly slope of the hill, in a sheltered position; and, although not so large as those at Mariposa, still there are some specimens, which for beauty of form, symmetry, and healthfulness, are unsurpassed by any others. There is a stump left of a partly-burned tree, which must have been some twenty-three feet in diameter. The trees are somewhat scat-

tered, but are well worthy a more extended examination than we could give them. We made our way out to the road, which has recently been completed through this section, which we followed back to the house, where we arrived rather late, as all our party had breakfasted. Although they bantered me for my early rising, and loss of what they termed a "magnificent breakfast," we had seen the *trees*, and they had not, and we went to California to see such sights; for we can eat at home, but can't see such specimens of vegetation.

Nevertheless, we had our breakfast, and were ready when the stage came to the door.

By the way, last evening, while we were sitting upon the piazza, who should drive up but our friend Daniel S. Harris of Springfield, Mass., president of the Connecticut-valley Railroad? He was accompanied by his wife; and it was, as you can imagine, a surprise to meet them so far away from our homes.

Our road is a narrow way, built around the sides of the hills, and, by a steep grade, takes us down to the San Joaquin Valley. One's continual fear is, that one will meet a carriage coming in the opposite direction; and, as a rule, one's fears become facts. A few miles on, in seemingly the worst place, we met an up-stage. A dilemma was at hand. "What will they do?" cried the

ladies; and the men, unused to such incidents, looked troubled and perplexed. A few words between the drivers seemed to put things to rights; for the driver of the up-stage began to unhitch his horses, accomplishing which, he drove the horses by our stage, and gave them in charge of one of the passengers; then he had the people in his wagon get out, and pass on; then they drew the carriage along with two of the wheels down the bank, and a half-dozen of us holding it up to prevent it tumbling down into the valley several hundred feet. In this position, our stage passed slowly by; the *up-stage* was drawn *up* again upon the road, the horses attached, the people seated, and each went on. Except in the mountains, where any road is a great undertaking, there would be some better plan of *turnouts*; but our knights managed this so nicely, that it only made a slight delay. Along all mountain-paths, here and there is seen the wreck of a stage or some vehicle, sometimes many hundred feet below in the valley, sometimes overturned by the roadside; and very frequently is seen a carcass of a horse or mule, which, failing by the way, has been killed, its whitening skeleton telling of the toilsome journeys.

About noon we reached Pechart's Ranch, upon which Bower Cave is located. This cave is in a limestone formation. The rock, having been worn away by sub-

terranean streams until it was too slight to hold up the superincumbent mass, has fallen in, carrying with it the trees and earth, so that now, in the bottom of this great hole, are four large trees which fell with the earth. Some little crevices in the rock can be explored; a little pool of water very transparent is there, upon which a little boat floats; and this is the cave. Lady Franklin visited it in 1862, and *we* in 1872; but, notwithstanding this, I cannot recommend any one to make much exertion or delay to visit Bower Cave.

At about six o'clock we reached Coulterville, the distance being from Crane Flat thirty-three miles and one-half. This place was named after George W. Coulter, who was an early miner, a massed a great fortune, which he spent in gambling, and at last died poor. It is a *dead* place; and decay and stagnation are seen on every side. It lies on the great quartz vein of the State; and some fine stamp-mills were erected in the vicinity, which to-day are all still. We are at an elevation of eighteen hundred feet, and on the middle ground between foot-hills and mountains.

We were quartered for the night at the City Hotel, where the accommodations are miserable, and where the landlord, a German, means to take from guests all he can, heedless of how he entertains them.

We visited in the evening Mr. Adolph Sinning, who,

in 1850, left Germany, and came to the Mariposa country. Unsuccessful as a miner, he again turned his attention to his trade as a worker in nice woods ; and, in his little shop and house (for he lives entirely alone), we saw some of the finest work in wood which we ever found. Specimens of his handiwork have been sent over Europe and this country ; and he receives orders from a distance. He remains here to be near to the trees which give him his finest woods, which he fashions into exquisite forms, of boxes, tables, canes, &c.

To insure our reaching Merced in time for the train in the afternoon, it was arranged to start by five, A.M.

We had a meagre breakfast ; and, from our experience at Coulterville, we should advise every one to arrange *not* to remain here over night until a better house is opened, for the treatment which guests receive is a general complaint, and the managers of that route would do well to have a *decent* hotel for travellers by their road.

The early start got us well on our way before the sun was high enough to trouble us with heat ; but the latter part of our way was hot and dusty and tedious. We came out of the foot-hills a few miles south of where we entered them.

About one o'clock we drove into the lively village of Snelling, the seat of Merced County, situated on the Merced River, which is here a beautiful river, and would

furnish good water-power if there was any demand for it. We found the Galt House a good place to get a dinner; and, from what little we saw of the place, this must be a good home-like hotel.

We hurried away from this place, and, a few miles out, crossed the river upon a ferry. It was such a ferry as is often seen in Europe, but seldom here, and is called a "tidal ferry." A stout cable is stretched across the river; and the boat, by means of ropes and hawsers, is held to the cable, attached by a tackle-block in which is a large pulley which rolls along the cable. The boat is pushed into the stream, headed just right, the hawsers secured; and the current pushing the boat down, and it being held, carries it swiftly towards the opposite bank. The apparatus was crude; the boat was managed by two men, one a Chinaman. As the boatman was not at his post when we drove up, but in his house, a long distance away from the river, it took a deal of noise from our driver to rouse the fellow up, who, when he came, complained of being taken from his dinner. This delay came near costing us the loss of our train at Merced.

By urging our horses, and especially the driver, by the promise of an allowance *over regular wages*, we were enabled to reach the city of Merced just as the train was starting; and only the politeness of the conductor saved us a stay over night. Without a look at

any body or any thing, we tumbled out of the stage into the cars, and were soon again on our way towards Lathrop, where we join the main line.

As we again looked over the vast plain, so level, and so different in character from the country in which, for two weeks, we had lived, we could not but exclaim, —

“Level leagues forsaken lie, —
A grassy waste extending to the sky.”

In this valley, a few weeks ago, the land was covered with ripened wheat, from which now the heads had been cut, leaving the straw standing on either side as far as the eye could reach.

During our ride down to Modesto, we formed the acquaintance of Mr. C. J. Cressy, of the firm of Cressy Brothers, among the largest farmers and millers in the valley, who have this year in wheat a little more than ten thousand acres, own some six thousand sheep, run a flour-mill at Modesto, and, by attention to their business, *make it pay*. From Mr. Cressy we gained much information regarding the cultivation of wheat in this valley; but, as the climate and soil of California varies so in different sections, a mode found successful here would fail in another place.

The soil of this valley looks like sand, and is, in fact,

granite, ground into dust by the ice-floe which made the Yo-Semite. The custom is, to begin to plough just as soon as the autumn rains begin. A gang-plough consists of seven ; and of these each farmer has as many as he can find teams for. They start their ploughs ; and immediately behind them follow the seeders, also drawn by horses, which drop the seed, cover, and roll, at the same time. Nothing more is done to it till the grain is ripe, and ready for the harvest. They plough and plant to almost the ripening of the first sowing ; and this plan, year after year, is followed. When the grain is ripe, they run a *header* through the field. This is a great cutting-machine, which simply clips off the heads of the grain. The horses push it along, instead of dragging it ; and the grain is carried upon an apron into the wagon, which follows alongside of the *header* ; and, when full, the heads are carried to convenient piles, where a steam-engine is driving a threshing-machine, which leaves the grain perfectly clean, and which is put at once into bags, and sent to market. Here no rains interfere with the harvest. The straw is all burned off ; and, by the time the ground is cleared, the rains begin (early in October), and the ploughs are started.

Mr. John Mitchell, the largest farmer in California, owns between fifty and sixty thousand acres in this valley, and, this year, had raising thirty thousand acres

in wheat alone. His ranch is divided into sections of different sizes; and upon each he has houses and barns, and a *rancher*, to whom he furnishes seed, and takes one-half the crop. Of these sections, or small ranchos, he has about a hundred, and spends his time in riding in his buggy, drawn by a team of fine bays, from house to house, and directing the work on his vast domain. He is a bachelor, and said to be a gentleman; and his income this year will be two hundred and fifty thousand dollars from his lands.

The average yield in this valley will be but little more than ten bushels per acre; although those ranchos which were well ploughed and seeded will yield twenty bushels per acre, and in a few instances more. The price of wheat, at the time of which I speak, was two cents per pound at the ranch.

Our very interesting conversation was too soon ended by the arrival of the train at Modesto, the home of Mr. Cressy, who was to spend Sunday at his own house, and then return to the ranchos.

Before we reached Lathrop it was dark; and, after a long waiting, the train came up which was to take us towards Sacramento. I had decided to stop at Stockton till Monday; while all the rest — to some of whom I had become much attached — were to push on to Sacramento, and to their Eastern homes.

It was only a few miles to Stockton ; and, as I left the train, a feeling of sadness came over me to leave friends from Boston and Philadelphia, whom I found so uniformly kind, and in such contrast with many with whom you are of necessity thrown. Journeying together in a stage-coach for days will bring out character better than any where I have ever found. As the train moved away, I felt so lonely, that a tear irresistibly moistened my eye. Night, and I in a far-off city, among strangers, and all my friends speeding away home !

Jumping into a buss, we were soon at the hotel named "Grand ;" and our first thought was to repair our dilapidated condition, for rents appeared in all directions, and *dirt* was plenty. —

Long shall I remember my trip to the Yo-Semite ; and my desire is now far greater than before to go and stay during the summer among those wonders, and with Mr. Muir read that *great book of Nature* which lies spread out in such grand scenery.

CHAPTER XXII.

Stockton.—A Trip down the San Joaquin.—Expenses of a Trip to California.—The Season of the Year to make the Journey.

IT would be a pleasing task to describe the beautiful flowers which are seen in a journey among the Sierras. In going to such an elevation, all the seasons are found. In the San Joaquin Valley, it was autumn ; the plants had blossomed, produced their seed, and were at rest. Up the mountains a short distance, it was midsummer; and the earth was covered with bright flowers. At an elevation of, say, five thousand feet, it was early spring; the plants were just pushing out of the ground : and, at seven thousand feet, it was winter, the snow still covering the earth. All these gradations in plant-life are seen in a ride of, say, two days. The flowers of the mountains of California are very brilliant in color, the yellow prevailing to a great extent, seemingly, as Grace Greenwood prettily said, “to let us know that *yellow* gold is under them.”

But we cannot delay longer with the flowers, especially now that we are again in the valley, at the "city of windmills," called

STOCKTON.

It is a port of entry; has a line of steamers to San Francisco, which come up the San Joaquin River, and into the slough (always pronounced here s-l-u), upon which the city is situated. Among steamboat men this place is always called "Slu city." Imagine a kind of channel making up from the main river, with a dozen sloughs emptying their (usually stagnant) waters into it, with long wooden bridges (often only for foot-passengers) over them in all directions, with buildings erected upon the ridges of *dry* land between these sloughs, with a short line of wharf along the main channel, a place which seems to be all under water, with stagnant pools breeding miasma, a few good buildings, but mostly poor old structures, and upon each a fantastic windmill, and you have the city of Stockton. It contains about ten thousand people: is the outlet of the great San Joaquin Valley, but has been greatly injured by the railroad, which *goes by*, instead of *through*, the city, as it ought to have done. It is the county-seat of the county named after the great river, and the valley through which it

flows. Once its trade was large; but now it has dwindled away, and the city seems "under a cloud," as well as under water. The house at which we are lodged is kept by a Frenchman, who calls his house "The Grand," takes good care of you, in a neat room and with fairly-cooked and fairly-served food. If I should say that I rose early the next morning after my arrival, you would know that it was a "slip of the pen:" so I take care to say that I took an *extremely fashionable* eleven-o'clock breakfast.

Finding my friend, the Rev. Mr. Fitzgerald, ex-commissioner of public schools, we attended the church where he officiated, but must own we were in ill humor to hear a sermon.

The afternoon found me strolling around the city, and trying to gather some notions of its present prosperity and future growth. It is so badly situated, so injured by the railroads, and so unhealthy, that I cannot see any good reasons to anticipate a large city. It is too near Sacramento, the capital, and has not in itself any elements which will command prosperity. Just at sunset we had wandered to the western extremity of the city, where begin the *tule-lands*, which stretch away to the west to the very horizon. These *tule-lands* are formed by the overflow of the great rivers called San Joaquin and Sacramento, and consist of soft, porous

soil, thoroughly saturated with water. There are bayous which make up far into these lands, many of them quite deep, but all of which have the title "slu." Covering the country for miles, and growing in the porous soil, is the rush called *tule* (*tu-la*), which attains a height of from five to eight feet. In August, when the river has become low, and has drained these vast acres, and the plants have become somewhat dry, the steamboat-hands have a custom of firing them along the banks of the river; and then they have fires rivalling those of the Western prairies. There are now experiments being tried of reclaiming these lands, under the patronage of the State. An immense dike is made around a number of acres, keeping out the water; and one season dries up the soil sufficiently to allow of its being turned in, and the next season it is fit for planting. I was told that satisfactory crops of wheat had been raised; but the farms seem better adapted for raising vegetables for the San Francisco market. The work is done by Chinamen; and I know of no other class of laborers who could be found to go into such a country, and survive the dangers of disease to which they are exposed; but they seem to be destined to be the power which shall reclaim these vast acres, and fit them for cultivation.

We lingered until the sun went down, and we beheld the most gorgeous sunset we ever looked upon. Talk of

the Italian sunsets! tell of those in New England in the Indian-summer time!— they cannot be compared with those which are seen upon the banks of these rivers. The moisture which rises from the lands offers its innumerable particles as so many reflectors, all increasing the brilliancy of the scene. As old Sol sank in this sea of mist, his parting beams were shot far up toward the zenith, seemingly striving to catch the rising beams which the morning brings from the east.

During our stay in the city, we visited the Insane Asylum, where were collected a larger number of patients than in any similar institution in the world. The day of our visit, there were more than thirteen hundred at the institution. By politeness of Dr. Titus, physician in charge, we were enabled to make an extended examination of the asylum; and, in company with Dr. Langdon, we visited all the various wards, and beheld insanity in all its forms of development.

The great excitement under which the people live, especially those who gamble in stocks, produces terrible wrecks of the nervous system. That there is a climatic tendency to over-excitement, and consequent waste of nerve-power, is very evident. The physicians give the causes which lead to insanity in the State, as, 1st, Dissipation; 2d, Business losses; 3d, Homesickness; and all aggravated by the climate, and, of course, developing

more readily in persons with an hereditary tendency towards the disease than in others. The institution is greatly overcrowded; and it is a very serious question how the insane poor are to be cared for in the State. When it is considered how great is the floating population, it can be understood how great is the responsibility resting upon California to properly care for this class of unfortunates. Having visited all the wards in both the male and female asylums, and all the departments of administration, I must bear witness to the general order, neatness, and attention to the comfort of the patients, shown throughout; and this, too, when the buildings are so overcrowded, that cots are nightly placed in the halls, transforming them into dormitories. To Dr. Langdon I am under great obligations for his courtesies; and as we went from ward to ward entirely unannounced, and when not expected, if, on the part of various attendants, there had been any *cruelty* (of which we are now hearing so much in the New-York asylums), or neglect in their duties, I should have discovered it without doubt; but I must say that I saw little of which to complain, save what was too evident,—that there were more patients than could be properly and conveniently cared for. If any of my readers should visit Stockton, they will be amply repaid in a visit to this institution; and Drs. Ditus and Langdon will be found to be

skilled in the arts of the agreeable gentleman, as well as in the science of the human mind.

Our stay at Stockton was made very pleasant by meeting those whose acquaintance we had formed on our journey to the Golden State; and as they were from the East, making now this city their home, we found much pleasure in looking about a place new both to them, as well as ourselves, and talking of dear New England so far away.

The steamer leaves Stockton daily at thirty minutes past two, P.M., for San Francisco; and we had resolved to enjoy a sail down the San Joaquin.

As we stepped on board the boat, we thought we passed a familiar face; and after starting down the "slough" towards the river, some six miles distant, we discovered that the "man of the familiar face" was the captain. As soon as opportunity offered, we spoke to him, and found him to be an old Sound pilot, who had made many a trip from New York to Providence, familiar with every rock and shoal of the river, at the head of which sits Providence upon her many hills: he also remembered many who now are still plying those waters. It was a pleasing incident to sit and chat with one who knew the land of my birth, and to be able to tell him of many of his old comrades at sea, their positions, the vessels to which they were at-

tached, and of the *good* and *bad* fortunes which had come to each. Long shall I remember Capt. M. C. Cunningham and the little steamer "Cornelia." It was late before I retired, to wake up at the wharf in the city which sits at the Golden Gate.

For six miles we go down the slough, narrow, and, at low water, unnavigable; and then, by a turn so sharp that the stern of the steamer went "high and dry" upon the mud bank, we shoot out into a wider stream, the main river; and by the most crooked of all crooked streams,—often so narrow that you could step from the steamer upon the banks, then so shallow that the keel would drag in the mud,—we made our way through these great "*grass*" fields; for seemingly the ships which we would see all around us, the river being crooked, and the sloughs so numerous, were sailing through the grass.

The boats in the rivers are propelled by double horizontal engines, driving side-wheels; for often it would be an impossibility to make the turn, unless they could work one wheel, while the other acted as pivot upon which to turn the boat.

We made several stops at places where the work of reclaiming these lands was being carried on; and just at sundown we came out into Suisun Bay, into which empty the two great rivers Sacramento and San Joaquin,

which, for several miles back, have only a narrow strip of land dividing their waters, and so low that you see plainly from one river the sloops and steamers in the other. We make a landing here, and take in coal from Monte Diabalo, the discovery of which is of quite recent date. From Suisun Bay, our course lies down through San Pablo Bay to the city, as I have before described.

Morning found me back to San Francisco, and again comfortably quartered at the Lick House.

While we are resting from the fatigues of our journey to the Yo-Semite and back, let me give a few rules to be observed in travelling among the mountains. Dress warmly, but in clothes which you are not afraid to have soiled. A woollen shirt is desirable; and wear English walking-shoes, rather than boots. Over your shoulders, and tied quite tightly about your neck, wear a white silk handkerchief; for, although the air is cool, the rays of the sun at those altitudes are often productive of very injurious effects. Avoid drinking much snow-water, and allay thirst with a bit of cracker until a spring is found. Do not descend from a high altitude to a lower one suddenly, as congestion of the lungs is the effect. Always choose a mule, instead of a horse, as they are surer footed. Above all, never complain because you do not have city comforts, but be contented wherever you may be, assured that nothing is had with-

out some work and hardships. And by all means let me urge the rule which I laid down in the first chapter, to map out well your journey before starting; understand where you are going, and what *ought* to be seen; arrange for your whole trip, in cars, stages, for guides, for horses or mules, toll, and all other charges, as far as can be, and thus you will be saved many inconveniences and annoyances. Many were the disappointments which I saw occasioned by not considering the journey before it was undertaken.

And I might as well add here what I have to say about the cost of a trip to California. Either through ignorance, or to influence people to undertake the journey, I have seen estimates made which were so far from the facts, that I cannot well understand how they were computed. I did not follow those which I had seen, and that, too, in respectable journals; for I found, when I inquired about the mere cost of car-fare and living on the way, that the estimates were wrong. The figures which I shall give will be liberal, for I did not refuse myself any comfort but will not include *extras* or *sundries*, for which I never make allowance. It must be borne in mind, that, after you enter California, your payments are made in gold; and, while I was in the State, the value of greenbacks fluctuated from $88\frac{1}{4}$ to $92\frac{1}{2}$; but, as a rule in trade, they are taken at ninety cents on a dollar. Actual

experience is the best teacher; and my figures will be a safe guide to one whose wants are simple, but who believes that a first-class hotel is the cheapest place to stop at, and wants the best of the market, although he never "calls a hack" to ride a block, and never has an item upon his hotel bill denominated "extras" or "sundries." The amounts are reduced to currency.

EXPENSES.

For car-tickets from Boston to San Francisco, and return,	\$286 00
For sleeping-berths (Pullman ears)	32 00
For meals.	40 00
For Salt Lake City, and return to Ogden.	6 00
For three days' board at \$4	12 00
For two weeks in San Francisco, \$3 per day (in gold), and for porters, hacks, and horse-car rides, \$1 more (parlors and fires extra).	65 00
For the Geysers, and return (4 days)	35 00
For San José and Santa Clara (3 days).	20 00
For the Yo-Semite, and return (2 weeks), including all charges.	150 00
For travel upon the railroads of California per mile . . .	.05
For hack-rides the charges are five times our own for same service, and payable in gold. For the short excursions to Oakland, Alameda, Mare Island, Vallejo, San Raphael, &c.	25 00
For trips in Southern California (Los Angeles).	150 00
For Lakes Donner and Tahoe.	50 00
For Virginia city (Nevada).	30 00
For Colorado, Denver, Golden, Idaho Springs, and the min- ing-country at Black Hawk and Central, allowing two weeks	200 00

From which data it is seen that a round trip, including the chief points of interest in California, will cost about eight hundred dollars ; and twelve hundred can be profitably spent by including Nevada, Colorado, and Utah ; and these places ought not to be omitted.

For a few days after my return from the Yo-Semite I felt rather tired ; but, nevertheless, my time was fully occupied in studying the city, the results of which have been given in former chapters.

We had been enjoying the usual cool weather of summer, when on Wednesday morning, June 19, the thermometer suddenly rose to 92° Fahrenheit, which, for this city, was extreme ; and, dressed in winter-clothing, one suffered much : but all advised no change of dress, for they said a sudden change would come soon. By noon telegrams came pouring in from all parts of the State of great heat, as at Napa City 107°, and San José 104°. That day over, the next was warmer, and 96° was reached,— a higher figure than a record of eleven years showed, and many said higher than ever before. So you see, the great wave of heat which swept over the East, overpowering so many in our great cities, also swept over the West in unprecedented fierceness. On Friday, about noon, the change did come, and indeed suddenly ; for, seemingly in an hour, an overcoat was needed, and by sundown we had a fire in the hotel parlor.

This is their summer weather: in the winter, it is more even, with no fogs.

And this leads me naturally to speak of the

SEASON TO VISIT CALIFORNIA.

The rains begin about Oct. 1, and, with an intermission of a few weeks in January and February, continue till March; from which time, to October again, they have no rain at all: hence this is a State of either mud or dust, with short seasons of extremely delightful weather. Instead of the plants and trees resting in winter by means of frosts, they rest here in late summer by means of drought. Before I left the State (late in June), many plants, and some of the trees, had already completed their growth, and ripened their seed and wood, and were at rest. On most of the deciduous trees, the old leaves remain until pushed off, as it were, by the new ones. So many months of drought, as can be imagined from the lack of rain in New England for even two weeks, make every thing extremely dry, and to see a green thing is delightful: so that, in the small gardens, constant irrigation is resorted to, to keep a little grass green, and the trees and the shrubs in leaf.

The roads are, during the rainy season, almost impassable by reason of the mud, and, in the summer, by the

dust, which, I apprehend, is far more disagreeable than mud, if my experience with it gives any data for a judgment. It is of the utmost importance, then, that we make our journey at the proper season. And this is my advice : Leave the Atlantic coast about the first of April, as then the snow-storms of the Rocky Mountains are over, and go direct to San Francisco, which make, as a Frenchman would say, your *point d'appui*. Spend at least two weeks in looking about the city and immediate vicinity ; and, if you propose a trip to Los Angeles and Southern California, go there first, and then return to the city. Make your excursion through the Santa Clara Valley, and to the geysers. By this time the trails will be open to the Yo-Semite ; and to this famed place it is best to go early, that those wonderful waterfalls may be seen in their majesty.

From a month to six weeks (as you go to Southern California, or not) will thus be fully employed.

Returning on the Central Pacific from Truckee, visit Lakes Donner and Tahoe ; and from Reno go to Virginia City and the great silver mines of Nevada. Either of these excursions will occupy three days fully. From Ogden, go down to Salt Lake City, which will be in her lovely spring dress, the Wahsatch range still snow-clad, where two or three days ought to be spent, and more if the mines are visited.

At Cheyenne, on the Union Pacific, we leave the main line for our journey through Colorado; make a stay of a few days at Denver, and then go to Golden; from which point we now start by stage or carriage for the great mines and smelting-works and stamp-mills at Central, Georgetown, Blackhawk, and Nevada City. By next season the railroad will be completed far up Clear-creek Cañon, towards Central, so that soon the whole distance will be made in cars. The road is now completed, and running some six miles up the cañon, which abounds in beautiful scenery throughout its entire length.

If time permits, the "Parks" in the mountains can be visited, and many other interesting points. Two weeks, at least, should be spent in Colorado. At Omaha a stop should be made to look over the city, and also to examine the great iron bridge over the Missouri River at this point. There are several places in Iowa and other Western States, where a little time can be spent very profitably on your way back to the East, or, say, to Niagara Falls, where you arrive just as the season begins, and where I have for many times found the International one of the choice places to take a good rest.

A trip to California is far more pleasing than one to Europe: you are all the while in your own country, and

with people speaking your own language ; and the places visited are of far more beauty and interest. The round trip cannot be made any more cheaply than a trip to London and Paris in the summer ; but if, of the many thousands who every year go to Europe, more would go to California, and back, or even to Colorado and the Rocky Mountains, they would be far better pleased, and much more instructed. To enjoy Europe properly, a certain knowledge of the language is required ; but almost every one can find enjoyment in our Great West. To some, her vast resources will be most pleasing ; to others, her grand scenery will be a full enjoyment. Travelling is made as comfortable as can be, saving only a few inconveniences on the longer roads ; and many of these will be remedied during the year.

We are now thinking of our homeward journey : shall spend next Sunday with Mr. Ralston, and next morning turn our faces towards the rising sun.

CHAPTER XXIII.

A Day at Ralston's.—The Fine Estates in San Mateo County.—
The Start Homeward.—Our Car.—A Hotel on Wheels.—
The Trip to Ogden.

SUNDAY morning, the 23d of June, came in with a warm and genial atmosphere entirely free of fog. Such a day is rather uncommon in San Francisco during the summer months; and, to find a *warm* climate, the people go to the valleys, as up through Napa to Calistoga and White Sulphur Springs, or down through the Santa Clara, to the various charming villages and cities, or the palatial homes which are scattered all through San Mateo County. At one of these homes we are to spend the day, and enjoy the hospitality of its genial host. Eight o'clock found us all on board the train, which traverses the Santa Clara Valley, and over a road which they are pushing on as fast as possible to be one link in a southern line which is to cross the continent. The Central Pacific Company have named this one of their many lines the Southern Pacific. As I have described

the country in a former chapter, I need only say that we are to go to a station named Menlo Park, where Mr. Ralston is to meet us. On our trip down we had an opportunity to chat with Mr. James Lick, one of the richest and largest real-estate owners in California, who built the famous Lick House. Mr. Lick early went to Mexico, and, during the years 1848-49, wended his way north, and reached San Francisco, and at once began to purchase lands, and year by year found himself growing rich beyond the dreams of the greatest enthusiast of the newly-founded city. He is a widower, of *excessively* plain habits and dress; lives in his log-cabin on a rancho near the city of San José; carries a *dilapidated* carpet-bag, and wears a *dilapidated* hat; walks instead of rides; and, when he visits the city, finds his wants supplied in the poorest room, and with the simplest fare, in his great hotel. By trade he is a cabinet-maker; has a fine mill, where he works a little, but finds his chief enjoyment in cultivating his garden, where he collects trees from all parts of the world, plants them, and cares for them tenderly. In speech he is not fluent, but talks with intelligence; in carriage he is awkward, and there is nothing to indicate a man of talent. His wealth is counted by millions; yet he leaves the management of his property mostly to others, and does not seem to be conscious of his vast possessions. He is not what you

would call a *miser*, yet he prefers *not* to spend any of his money for what most of us deem *comforts* in this world. He has one son, a farmer in one of the great States east of the Rocky Mountains, who will inherit his vast wealth. It was very interesting to hear from his own lips some facts of his life, and to be thus brought into conversation with him, of whom you hear so much as soon as you reach San Francisco.

A ride of about an hour, and we are drawn up at the station, where Mr. Ralston receives us kindly, and asks us to a seat in his carriage. Our party consisted of Superintendent Sickels, wife and two daughters, Grace Greenwood, Mrs. Mitchell, and myself. Mr. William Ralston is a man rising forty, of stout build, with a countenance and air which tell of the hospitality and cheer which he loves so well to bestow. He is free from all affectation; and you at once forget the *money-king*, and see only the *genial gentleman*.

The carriage was built upon the English style, with seats lengthwise, a raised seat in front, and with the usual attachments of a brake, which is indispensable for the hills. To our carriage were harnessed four bays of perfect form, and full of spirit, which were held by a man whom I judged to be the driver. As soon as we were all seated, Mr. Ralston *himself* took the reins, and at a word the horses started at a lively pace. Surely, we

thought, this is grand to be driven by such a knight, and at such a speed.

We were in a beautiful country,—a great park by Nature formed and planted. The roads, although dusty, were wide; and we could see the houses among the low-branching live-oaks, which are the pride of the county. It was too late for the flowers: the grain, too, was ripened, and, in most parts, had been cut. After a short ride, we were drawn into the grounds of Milton S. Latham, where no expense had been spared to make the place attractive. We visited the stable, which for size, and splendor of finish, we never saw surpassed. The beautiful woods of California had been used, and these had been finely polished; while all the fittings and appurtenances were in keeping. It seemed to be just completed; and, in unpacking the furniture which was to be placed in the servants' quarters above, the men had set the small mirrors in the stalls, one in each; upon which one of the ladies remarked, “Yes, indeed, this is the finest stable I ever saw; for don't you see they have furnished each horse with a mirror to make his morning toilet by?” The new mansion-house here is not yet completed; the former one having been, I believe, destroyed by fire.

From here we were driven to the fine estate named “Valparaiso Park,” owned by F. D. Atherton, Esq.

Mr. Atherton met us upon the piazza; and, having given the ladies over to those of the house, the gentlemen were conducted through his fine grounds, where orchards of almond, nectarine, English walnut, apple, cherry, and fig, are growing, having been planted only three years. The cactuses (*cactaceæ*) seemed to delight in this situation; and one plant had attained the height of fifteen feet, and stout enough to sustain itself. The finest tree not indigenous to the place was the pepper-tree, near the house, whose feathery foliage was swayed by the slightest breath of air. The great oaks, with their extended branches, from which hung the moss in great tassels, dotted the extensive grounds; and flowers, magnificent in color, and in a profusion unknown to our New-England gardens, made the air fragrant, and gave to the place exquisite beauty. In the mansion, elegance and taste were shown on every side, and in the dining-room were offered refreshing viands.

It was too lovely a spot to leave so hurriedly; but our host summoned us for a ride towards his own mansion.

Our party had now been increased by Mr. and Mrs. Samuel Lawrence of Boston, and Stephen Masset, Esq., who is well known as "Jeemes Pipes of Pipesville," whose genial wit and pleasant *bon mots* gave a zest to our other pleasures during the rest of the day.

It was a delightful drive which took us towards the village of Belmont,—the nearest railroad point to Ralston's home. Passing over a well-built road, through the town, which is regularly laid out, and where are many pretty cottages, we reach the entrance to Glenwood. The first object which meets our view is the neat building where gas is produced for lighting the house, buildings, and grounds. By these we dash at a lively pace, directly into the stable, where several grooms take our *horses* in charge, and Mr. Ralston takes his *guests* in charge, and from each removes the dust with a feather duster. He then shows us his stables, where that day twenty-one horses awaited their master's summons, with grooms sufficient to care for them. One thing was noticeable about the stables, which told something of the character of its owner,—that, while the utmost neatness prevailed, it was not *over-nice*, as the first stable we visited. The inside was kept freshly whitewashed; and the carriages seemed arranged for instant use, instead of show.

We walked to the house, and were ushered into an extended closed gallery, which surrounds the rooms of the lower floor, where Mrs. Ralston received the ladies, and conducted them to her apartments; while the gentlemen were put into the hands of servants, to be at once “set in trim” by brooming and dusting, and washing and

combing. Before you had been in the house five minutes, you felt at home, and that the house was made to live in, and that all the splendid and costly things which surrounded you were to be not only looked at, but handled. I should judge that the house was not built at once, upon a matured plan, but was the outgrowth of required accommodation. A dining-room, drawing-room, and library, surrounded on three sides by the gallery, with windows extending from floor to ceiling, with the kitchen and laundry in the rear, and built directly into the hill, with a beautiful corridor at the top of the main staircase, from which the chambers open, while over the kitchen is a large but as yet unfinished banquet-hall, comprise the main house. It is of wood, painted white, and is placed in a very sheltered position among the foot-hills of the coast-range of mountains, on the side towards the bay. Fine pictures, costly bronzes, and other works of *vertu*, are scattered about in defiance of all conventional taste; but their very freedom gives a pleasing and hospitable air to the house. In the corridor, which was planned and arranged under the direction of Mrs. Ralston, the hand of a cultivated taste is shown; and, in all the appointments of the second story, there is the utmost order, as well as harmony.

At twelve breakfast was announced; and we soon found ourselves around the table; and, for nearly two

hours, the courses of delicately-prepared food were brought in, while conversation and gayety filled up the intervals. I have sat down to elegant breakfasts in New York and elsewhere ; but to this I yield the palm, both for the nicety of the viands, and the graceful manner in which it was served.

We were shown over this spacious mansion ; and particular pains were taken to conduct us to the kitchen, and show us the Chinese cooks, who prepared the food of which we had partaken. Here a chief cook with two assistants presides ; while Chinamen do all the general housework. The steward is a colored man ; the waiters are white men, probably Frenchmen ; and these, together with the help employed out of doors, make some twenty-five : and yet this establishment is conducted in the most orderly manner, and with an ease which surprises you. The same order and conduct on the part of the servants prevail daily, as I am assured by those who have spent several days together at the mansion. At three o'clock our carriage was driven to the door ; and, again bidding good-by to friends left behind, we seated ourselves for a ride up to San Mateo, a station far up the road towards the city. We were first taken over the estate ; and the skill which Mr. Ralston shows in guiding his horses over the steep and crooked roads was a matter of remark by all. From the eminences, we had

beautiful views of the surrounding country. We passed from one fine estate to another, charmed with the beautiful gardens and parks around the houses. On our journey we passed a little stone chapel, which must have been planned by an artist, for beauty was there; and, with a slated or tiled roof, it would have been a gem of architecture.* We also drove through the place where lives Hayward, the ruler in the stock-board, who, by the recent *fall* in stocks, found himself *raised* by millions,—almost the only one who profited by that terrible calamity which overtook the “dwellers in California Street.”

We drive into the village of San Mateo, where we are to take the train for the city: the team is sent back by a servant, and Mr. Ralston accompanies us to the city.

When the Boston Board of Trade and their friends returned from San Francisco, all we heard of for some time was the praises of their entertainment by Mr. Ralston; and I must own that they could not over-praise the elegant manner in which the hospitality of Glenwood is dispensed. I have described our visit thus minutely, that my readers might gain an idea of how rich Californians entertain their friends; for, although Mr. Ralston's receptions are more princely, still

* Bret Harte mentions this church.

there are many who outdo our Eastern *magnates*; and all here ennable their entertainments with genuine hospitality, which is usually wanting in our large Atlantic cities.

Mr. Ralston has great talent as an executive; and, as he is seconded by a charming wife of cultivated taste, they find only pleasure in receiving their numerous friends, many of whom are introduced through Mr. Ralston's official connection with the Bank of California, which now has a credit the world over. A princely fortune is required to carry on such an establishment; and to entertain so successfully requires, too, a talent for it.

Six o'clock found us again in San Francisco, which to-morrow morning we are to leave on our homeward journey. Packing and arranging *must* be done at the cost of refusing no less than four invitations for dinner; and, too, a good-by must be said to very dear friends whom we have found in this far-off city, and who are left with many regrets.

To woman is given the art of *packing*, they say: of one thing I am sure, I never possessed it; and, although a box full of *traps* has been sent by express, enough are left to fill a half-dozen portmanteaus like mine. Half the night was spent in devising means of getting my luggage into order; and, when the time came to start

for the train, I found myself surrounded by as many bundles as the housewife from the country has after she has spent a day in the city at spring-shopping.

Some of our friends were kind enough to accompany us across the bay over to Oakland; and, by the united efforts of all hands, all the bundles were safely deposited in the car which was to bear us away.

A shrill whistle sounds; "All aboard!" is cried by the conductor; the bell upon the engine is ringing; and we are slowly going out of the dépôt upon the long trestle-work which extends from the mainland far out into the bay. We are soon under full speed towards Sacramento. Having disposed of our traps, we look around to see if all our friends are here. Yes: there are Mr. and Mrs. Sickels, Grace Greenwood (Mrs. Lipincott), Joaquin Miller the poet, and Mr. and Mrs. Darlington and niece of Pennsylvania. Our car is the directors' car of the Union Pacific Railroad; and I will try to give you a notion of its plan. In the first place, it is very large and heavily built, probably weighing more than three ordinary passenger-cars. In one end is a complete kitchen, a range, racks for dishes, an ice-box, a sink, &c.; next, and separated from the kitchen, are sections, two on each side, like the Pullman, which can be transformed into beds at night; next—another partition dividing, and occupying, say, one-third of the

car—is the drawing-room, dining-room, and by night a sleeping-room. An extension-table occupies one corner; and on either side is a sofa; and a side-board upon each side of the door towards the kitchen, above each of which is placed a mirror. Beyond this is another room as large as the kitchen, where is placed the heating apparatus; and on the side is a rack of six rifles, and drawers for ammunition—probably added as a defence against the Indians,—now only required for *game* of other sorts. There are small and well-appointed toilet-rooms partitioned off; and all the sections are covered with a heavy Brussels carpet. The rear platform is surrounded by a railing, making it a safe place where to sit, and observe the country. At night the car is well lighted; and the windows are double to keep out dust, as well as the cold. It rests on many springs; and the trucks have six wheels each, so that ease and comfort are secured. Our stores are ample; and Tom Cornish is to act as general manager, while Henry Fouré is to preside in the kitchen; and, as they are well trained in the management of a hotel-car, no doubt we shall be well cared for.

Before we reached Sacramento, we had our first meal in the car; and the way Tom brought in the dishes, all well filled, would shame many a hotel which is not on wheels. It would be well for the landlords of some

hotels where we have been quartered to travel on wheels a little, that they may see how the thing is done; for it seems to me that a man, when he has proven himself unfit for every other calling, when failure has overtaken him on every hand, as a *dernier resort* becomes either a minister or a tavern-keeper. Henry Ward Beecher of Brooklyn says there is a well-defined connection between a man's gastronomic apparatus and his religious instincts; and, as readers of "The Ledger" never doubt what the Plymouth divine says, we will grant its truth, and by it explain why ministers love so well to attend tea-parties, why every modern church edifice is now supplied with a kitchen and cook-stove, and why a man who takes a final leap in business is as apt to minister to our physical as our moral wants. But hold on! This sermon has already gone beyond the fashionable length; and the preaching of long and *solid* sermons now-a-days is a sure way to bring a polite invitation to pack up your traps and seek a new flock "in pastures new."

We are again in Sacramento, which has arisen from the devastation of floods and fires, and is to-day, probably, the handsomest city in the State. As all the railroad grandees live here, of course much has been done by them to make this a centre of various lines, and add material wealth to the city by the establish-

ment of the work-shops and car-shops of the Central Company. The streets are wide, the buildings in many instances very fine, the trees and herbage magnificent in their almost tropical luxuriance; and the energy and business enterprise of its citizens far surpass any other city. The capitol is to be a grand edifice, a pride of the whole State. A *newness* is apparent on every side, which is so in contrast with our New-England towns, that it is quite offensive to one who has always lived in the East. The city is growing very fast both in population and wealth; and none of those evidences of overgrowth are seen here, which are so lamentably shown in San Francisco.

We push on; and, just as darkness comes on, we pass around that point in the mountains called Cape Horn, and by a slow and toilsome climb reach the summit of the Sierras. Nothing of importance has occurred, save that we have got several hours behind our time by the burning of wood along the track, and are obliged to wait on side-tracks for trains "bound west." Along our journey over the Central, we found no new interest, save to notice how successfully the trees and plants had been grown in the lands just about the stations in the great desert, which had been subjected to irrigation. Facts and experience are fast proving, that the lands which a few years ago were thought entirely incapable

of cultivation can be made to grow many of the usual vegetable products of the West. There were some apple-trees which were growing very finely indeed.

We also found good company in a Pullman on our train; and, if people who are travelling together will only try to make those about them happy, then a good time is assured. The second night on the road we arranged a little entertainment in our car, and invited the ladies and gentlemen from the other cars into our "improvised Music Hall." The exercises consisted principally of recitations, with delineations of the characters by Grace Greenwood; and the name assures the success of the renderings. The young ladies sang for us; and we were all happy — for the time, at least.

The next morning we reached Ogden, some four hours late. John W. Young (son of Brigham) gave us a polite invitation to visit Salt Lake City and to an excursion on the lake; but we were forced to decline the kind attentions, as we were anxious to reach Cheyenne.

Here we again met Mr. K. D. Brown, who was at his post, giving to the many passengers the accommodations of the elegant Pullman cars, of which he is the popular agent. It requires some time to make up the train for the East, as all the baggage is changed, as well as the mails and express matter. It would seem that the cars ought to be run *through*; but I am told that the dis-

tance is too great between Omaha and San Francisco to keep a car in continued motion.

At last we are all ready, and we begin our journey on the Union Pacific.

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CHAPTER XXIV.

The Building of the Central Pacific Railroad.—How the Union was built.—Comparison between the Two Roads.—The Several Surveys which have been made to determine Routes for a Railroad.

In our last we finished our round trip over the Central Pacific; and now let us tell the story of the building of this road, and say a few words about its management.

Those who have told this story heretofore have selected one of the few men who were the promoters of the enterprise, and eulogized him, often to the disparagement of the others; but I will try to do all justice, and state the part which each took in the great scheme, out of which was evolved the railroad, which, in its passage of the Sierras, stands to-day the triumph of engineering skill.

Five men, entire strangers to the building of railroads, promulgated, fostered, and carried to a successful issue, this important enterprise. Stanford was the gov-

ernor of the State, but, before that, was a wholesale grocer; the two Crockers were dealers in dry-goods; and Huntington and Hopkins were hardware merchants. They all lived in Sacramento, then a small inland town, which had a precarious existence between fire and flood. In that city, at No. 54, K Street, may be seen to-day the sign "Huntington and Hopkins." It is a store for the sale of hardware, and the business is still pursued in about the same style as in the early days of the enterprise. It was in a back-room of this store, where the gentlemen named used to meet to pass away their evenings, that they organized their company. They early perceived the necessity for a road, talked it over night after night, till they became so "filled with the faith," that they, even though they had small means and few friends, thought they could build the road. They resolved to act; and they began in earnest, although upon a small scale, to develop a *plan*. The time of which we speak was 1856-58; and the road only existed in the dreams of these enthusiasts, who, in the far-off future, saw the iron-horse snorting over the snow-clad Sierra. Engineers of repute had said that the mountains could not be passed; and, whenever a Pacific Railroad bill was presented to Congress, these reports were conned over; and the very idea of a road amid these almost everlasting snows was ridiculed by "grave senators."

Probably what gave the greatest impetus to the enterprise was the bold assertions of the engineer Theodore Judah, who was engaged to build the Sacramento Valley Road, and who was so earnest in his declarations that a track could be laid across the mountains, that he was called "Pacific Railroad crazy." He at last so gained the confidence of the people directly about him, that, by much solicitation, he received a subscription of fifty dollars to enable him to make a survey. This was the real beginning of the work. Having made a partial examination, he became more fully convinced of the correctness of his declaration; and, by a little more aid, he proceeded with his surveys, until he proclaimed, that, by way of "Dutch Flat," he had found a long and easy ascent of the mountains. He called public meetings of citizens of the mining villages along the route; and gradually the inhabitants became convinced of the practicability of the road, although the scheme seemed so unlikely of success, that all the banks and bankers, as well as the moneyed men, kept aloof from it; for they had little faith in the "Dutch Flat Swindle," as it was called, the five men first mentioned being about the only ones who were ready to give their money, and stake their fortunes, in the enterprise.

We can imagine all kinds of difficulties to be met and

overcome ; and by no means the least was the ridicule heaped upon the enterprise, especially by the bankers. In the city of San Francisco there was not a dollar raised ; and the great express company (Wells, Fargo, and Company), the steamship lines, all the various stage-lines and river-steamer companies, vied with each other in their opposition to building a railroad. The laws of the State of California, under which any company must act, were very illiberal towards corporations and the stock-holders ; and the people stood aloof from the scheme, leaving a few bold spirits to work out the problem, and reap the rewards which have followed from the completion of the line,—large, surely, but only just.

Another turning-point in the life of the enterprise was when, at a meeting of gentlemen at Gov. Stanford's house in 1860, after much and earnest discussion, and all seemed upon the point of flagging, Mr. Huntington arose, and said, "I will be one of eight or ten to carry out this scheme." New life was infused ; new purposes were awakened ; and seven bold spirits put their names to a compact to pay all expenses for three years, to complete surveys, estimates, plans, &c.

Of these seven, Judah, who had been the prophet sent from afar to show the people of California the *way* over their mountains towards the Atlantic, had no money, and soon afterwards died. To Judah must be

awarded much praise ; for it was a bold spirit which could, in the face of such ridicule, still proclaim what to him seemed not only possible, but easy of accomplishment. He was a pioneer ; a mind which perceived before others ; one who lived outside of the circumstances which surrounded him. He took a grand step forward in railroad engineering, like Brunel in steamships, or Lesseps in canals. Another of the little band became disheartened, and fell by the way ; leaving only the five whom I have mentioned,—Stanford, Huntington, Hopkins, and the two Crockers.

They organized their company with the first-named as president, the second as vice-president, and the third as secretary and treasurer,—positions which they still hold, and, with marked ability, manage the affairs of the company. This was in 1870. The passage of the Pacific Railroad Bill by Congress gave this little company an assured life ; and each fell naturally to work in his particular sphere.

The usual fortune of railroad enterprises was apparent : they resolved to reap *themselves* the advantages of their early planning and patient toil.

They established their offices at 54 K Street, where they are to-day, and began work *in detail*, considering well each step, and surmounting the difficulties as they arose. Stanford — full of genuine good sense, a man of

vigor and determination — was at the head, and did valiant service in the State. Hopkins — the man of figures and calculations, who had made his business successful by calculating every cost — now applied the same careful calculations to this larger scheme ; and Huntington — intrepid, with innate honesty, of good address — went to Washington, New York, and other cities, to negotiate bonds, buy material, and make the people of the East know that the road *was to be built*, and that they must lend their money to do it. He succeeded ; and, for materials for construction, he exchanged bonds, which were guaranteed by the personal indorsements of the promoters of this grand, yet, at this time, hazardous enterprise. All the iron, and a large portion of all the material, had to be brought from the Atlantic cities, around Cape Horn, by a long and tedious voyage ; the prices were fluctuating by the war ; the bonds which the government issued to them fell to a low figure in gold ; and thus circumstances seemed to frown upon this plan for a railroad over the mountains which should serve to supply a new trade which had arisen between Sacramento and Nevada, as well as for a link in a grand trans-continental line.

Several times their money was all used up ; and then individual pluck was shown, and a few men were paid by each : and so the work was kept on. Each contract

was looked to closely, and its terms were scanned ; for these men were daily pledging every dollar they were worth, as well as their honor and reputation. These facts I state thus minutely, that they may be compared with the circumstances attending the building of the other road which forms the Pacific line. Many were the obstacles which they encountered ; and much credit is due to Grey and Montague, the engineers, who made the plan, and laid the grades, as well as found the way to take huge locomotives over the mountains by ox-teams, and could make a road-bed with snow-banks from ten to twenty feet deep around them. Upon the Alkali Plains they were obliged to bring water and fuel many miles ; and to find men to do all this work, Chinese were brought over, and, to the number of several thousand, lent their toil to this great undertaking.

The Central Company, of course, as they made *success sure*, found many friends ; and, after all the great difficulties were passed, many there were who were ready with money to aid them. This company pushed east as far as it could, and, as it approached the westward-marching line of the Union, shot by it, on towards the Atlantic ; and here came a warfare to determine where the two roads should meet. Congress had to interfere, and fix Ogden as the place of union. At length the year 1869 saw the road completed.

The Central Company are now the owners of the whole railroad system of California, and are pushing their lines in all directions.

The California and Oregon line is being pushed north through the great Sacramento Valley, around Mt. Shasta, on towards Portland, there to join the railroad system of Oregon. To the south, through the Santa Clara and San Joaquin Valleys, they have the Southern Pacific, which is to reach Los Angeles, and thence on to the Colorado River. The California Pacific has pierced the Napa Nalley; and the Copperopolis Road is pushing east towards the mountains.

In the prosecution of these various enterprises, the company is spending some half-million of dollars per month; and the whole machinery of this vast corporation is so nicely adjusted, and works so smoothly, that all these plans are being successfully carried out at once. Montague is still the chief engineer; Grey has charge of the Southern Pacific; while the same officers who were long ago first elected to their positions retain their places. Mr. Towne, the general superintendent, is a gentleman who admirably fills his place,—one of the most responsible and important of the many.

I was told that the company had in its employ within the State of California over seven thousand men, which seemed at first a large number; but when we consider

how many lines of road are under construction, and how vast is the business of the through line, we are not so surprised. The road-bed is in good order; the snow-sheds are all permanent structures; the rolling-stock is of a fair grade, but not as comfortable as the Union Pacific; and what was painfully noticeable was, that the conductors were not so obliging and gentlemanly as they should have been. An air of arrogance was shown, which seemed to say, "that, until a southern road is built, this is the only *train* for San Francisco; and we *graciously* allow you to ride in our cars." Competition will no doubt remedy this, but it is an evil which should sooner be removed; for some day in this country, as it has been in England, it will be decided that railroads are to be run for the *public*, and for their benefit and accommodation. Corporations and monopolies, cliques and combinations, may, for a time, oppress and hinder the people; but there always comes a day when the public assert, and, asserting, maintain, their rights.

So far as economical and successful management goes, this company stands a salient example in the history of American railroad enterprises. With the increase of business and resources, the company must study how to serve the *public*, in giving them every accommodation which can be had, and looking well to the character of their officers, who are brought into direct relation with the travelling public, their patrons.

As we were nearing the borders of Salt Lake, Mr. Sickels took pains to point out for us the bounds which marked the ten miles of track, which, in April, 1869, were laid in one day,—a fact which he witnessed, and which must, for a long time, stand unrivalled in railroad building.

As we leave Ogden, we begin our journey upon the

UNION PACIFIC,

whose history lacks all romance, and is only distinguished in the vastness of the schemes for plunder of the public treasury.

To the preparation of a description of the *modus operandi* of the building of this road, I had given much labor, and I thought it the best part of all I had written; but, just as it was finished, a quarrel occurred in that “family” which for many years has controlled the government in legislative as well as in executive departments; and, as is always the case, all the secrets have been let out. Between them, the Credit Mobilier, the bonds, the Government freights, &c., have all been so *plainly* demonstrated, and by so many abler pens, that I must decline to add *my* contribution to this already overcrowded department of political literature. Suffice it to say, that the road was completed long before

any one save G. F. Train (the "inspired idiot," they say out West) predicted. For this time, sure, Train was right; and he, better than those around him, counted the pluck, the energy, and the go-aheadativeness of the Americans. The celebration upon the completion of the trans-continental line, by the laying of the last rail, and the driving of the last spike, took place at Promontory, a few miles west of the present junction. Although the building of this road (the Union) was an easy task for the officers in charge, with their unbounded means, and they within a few hours of Washington, where they had the influence of the government, with materials of all kinds more readily obtained than on the line of the Central, still all was not sunshine to some of the projectors, who put their fortune into the enterprise in good faith, and at last found themselves pecuniarily crippled by it.

In riding over the road, we were struck with the seemingly unnecessary turns and twists upon some of the plains, where a straight course could have been taken. An engineer who laid many of these grades told me, that, in many places, the line might have been shortened. At least one is forced to the conclusion that the road was built upon the principle that "one good turn deserves another;" for, if there was a necessary curve, another was made, even if of no seeming

use. With the large amount in bonds and lands which the government gave this company, it is not surprising that they should make the road-bed as long as convenience would allow; and, if the recent disclosures (as they are called) are true, then conscience was lacking in the management of the affairs of this company during a part of its history.

In returning over the road, we were struck with its smoothness; and the vast amount of work which had been done since spring was apparent. The rolling-stock is in good order; and the cars are far more comfortable than those on the Central Road. The dépôts and station-buildings are commodious; and, in some instances, they seemed to be built upon expectation of what *will be* required. We, of course, should expect many blunders to have been made, the wrong locations selected for repair-shops and round-houses, sidings not where they should be, &c.; but, upon the whole, we are surprised and amazed that the work could have been done so nearly right for the requirements of the road. I will not name the officers of the road; for so many interests have, for a time, controlled each in turn, that no consistent policy could be pursued.

The snow blockade last winter caused serious trouble; but the almost incredible exertions of Superintendent Sickels and his assistants saved the lives of those on the

trains, and so supplied the passengers that they suffered only delay. By many who were in the snow-bound trains, I was assured of this fact: so that the stories which found their way into Eastern newspapers were without foundation. The winter was exceptional; and, if there had been only snow on the track, they could have cleared it away: but the snow and sleet together formed a mass which was nearly as solid as ice, weighing, in many places, thirty-six pounds to the cubic foot,—a mass against which the powerful engines contended in vain. The officers of the road assure me that they will this year be fully prepared to contend with the snows, and that, by the experience of last winter, they have learned many lessons which will profit them.

Mr. T. E. Sickels, who built the great Missouri Bridge, is the general superintendent of the company. As soon as he took charge of the road, he began to make changes looking toward the more economical running of the road, and completing connecting lines, which will bring new and more extensive business to the company. With great judgment he laid his plans, which are now being carried out; and feeders are already pushing from the main line into the rich mining and farming sections which lie just off the road. In every department he has reduced the expenses to the minimum; and the savings which one year's administration shows, were aston-

ishing, as well as gratifying. The stockholders and bondholders are now assured that their money will be judiciously expended, and that the work of construction will be done in a skilful manner.

Thus it is now; but then we must remember the danger which always exists of the change of administration, and the bringing-in of new interests.

We were very agreeably surprised at the uniform courtesy and kindness of the conductors and their men; and, from lady-passengers especially, I heard remarks of admiration of the *gentlemen* who passed through the trains, as well to see that all were comfortable as to collect tickets.

Now that I have spoken of the good points, let me remark some of the failings. In the first place, some arrangement must be made to check the baggage through from Chicago to San Francisco. We Americans *demand* that the companies look out for our baggage. In England your baggage is never *checked*: such a thing is unknown. There you place your portmanteau in a car which they call the luggage-van; and, when you arrive at your destination, it is thrown out, and you must "go for it," or some one else *will*. An English matron who was travelling on our train over the Union Pacific remarked our system of *checks* for baggage as one of the greatest conveniences, and our cars (when

she became accustomed to them) she thought she would like better than the English. She remarked, "I like your way of sending luggage in America; for at home one has to be right smart to get his own luggage." I state this incident to show how much *we* demand.

Next, the inconvenience of dealing with that Transfer Company must be *eliminated*, as we should say in algebra. The passage of that treacherous stream, the Missouri, caused more hard words to be spoken than can be erased from the *big book* for many a day. If in the *ledger* they have all been carried to the account of the Union Pacific, then they ought to be pitied. Perhaps they *know* that "corporations have no souls:" hence their freedom from all uneasiness on this score.

Some of the proprietors of the eating-stations ought to be promoted to higher callings; for they are evidently above running a hotel. The best table was found at Evanston; and it was kept by a colored man, named Howard W. Crossley, whose evident desire was to please all; and the lady-like bearing of his wife, "who takes the money," gained for them many friends among the passengers. The next were the tables set by the Messrs. Rumsig at Laramie City and Sidney; and the poorest at—well, go over the road yourself, and, if you don't find poor enough, then wait till we have

that "new hotel" in Providence, and you can know its difference by a comparison.

The Union Pacific Company own a hundred and forty-nine powerful locomotives, forty passenger-cars, and some two thousand freight-cars, the number of which is being increased as business demands. In every passenger-train which is made up to run through, there are from two to four "Pullmans," which relieves the company from owning a larger number of passenger-cars.

Daily new discoveries of resources are made along the line: coal and iron exist in great abundance, and useful minerals in large quantities. The great variety and extent of these discoveries is a subject of wonder, even to those who have often passed over the road; and a few years will, no doubt, witness developments of natural resources which will astound the world.

Like poor Judah, I have considered this subject so much, that I have almost become "Pacific-railroad crazy;" and, to free my mind of its burden, I will add, by way of recalling the history of this "grand thought" of laying a track across the continent, a list of the different surveys which were made for a route, but none of which were followed as the exact line. These surveys furnished the groundwork of all the plans, and were the means through which we became acquainted with our "western country."

Mr. Asa Whitney was the first man to call public attention to a railroad to connect the Mississippi with the Pacific Ocean. Between the years 1846-'50 he addressed meetings of citizens, sent memorials to State legislatures, and petitioned Congress. The first plan was to begin at Prairie du Chien on the great river, cross the Rocky Mountains by South Pass, and reach the ocean at Vancouver's Sound. The first incentive for the road was, of course, to furnish the government with transportation; next to make a highway for Asiatic commerce. The rapid settlement of California furnished another strong argument in 1850 and succeeding years. Benton of Missouri was a zealous advocate of the scheme, both in the Senate and before the people. After much labor and many defeats, the friends of a railroad obtained, in March, 1853, an appropriation of a hundred and fifty thousand dollars to defray the expenses of surveys; and accordingly six companies were formed, and began the work. As from these exploring parties all the information was obtained upon which all future plans were matured, it is well to recall the routes taken by each, and note the results attained. In the thirteen quarto volumes published by Congress, all the reports are found, and elaborate illustrations of scenery, flora, and animals. With these many are familiar; and, if any of my readers have not examined them, they will

be amply repaid for the trouble and time. Most public libraries have them.

"The first expedition was led by Gov. Isaac I. Stevens, formerly of the army, on the line of the forty-seventh and forty-ninth parallels of north latitude. It consisted of four separate parties. One, under Gov. Stevens's personal supervision, penetrated from St. Paul westward toward the mouth of White Earth River, thence, by the prairies lying along the Missouri River, to the Rocky Mountains, and among the passes of that region. Another, under Capt. McClellan, U.S.A., began at Fort Vancouver on the Columbia, explored to the north-eastward, examining the passes of the Cascade Range, and then eastward to join Gov. Stevens. Another party, under Lieut. Donalson, U.S.A., examined the Missouri from its mouth to the Yellowstone, where a junction was made with that under Gov. Stevens. The fourth party, under Lieut. Saxton, U.S.A., conducted a reconnaissance from Fort Walla-Walla to the Bitter Root Valley. The second expedition was on the line of the thirty-eighth and thirty-ninth parallels, and was commanded by Capt. Gunnison, U.S.A. It started from Westport, Mo., and followed the valleys of the Kansas and Arkansas Rivers to the Rocky Mountains. After carefully exploring the savage region between the Sangre del Cristo Pass and Sevier Lake, a portion of the

party, including Capt. Gunnison, was massacred by Indians. The command devolved upon Lieut. Beckwith, who proceeded to Salt Lake City, where he received instructions to extend the exploration westward upon the line of the forty-first parallel. This he did in the following spring, crossing the Sierra Nevadas near Fort Reading, and thence following the valley of the Sacramento to San Francisco. The third expedition, commanded by Capt. Whipple, U.S.A., was on the line of the thirty-fifth parallel. It started from Fort Smith, and took the route by the valley of the Canadian River and Auton Chico to Albuquerque: thence it proceeded westward by Zuni, the valley of the Colorado Chiquito, the valley of Bill William's Fork, the valley of the Mohave and the Cajon Pass, to San Pedro on the Pacific. The fourth expedition, under Lieut. Williamson, U.S.A., was fitted out at San Francisco, and, passing up the San Joaquin and Tulare Valley, explored the region about Walker's, the Tejon and other passes, and portions of the Mohave and Colorado Rivers. The fifth expedition was over the western half of the line of the thirty-second parallel, and was commanded by Lieut. Parke, U.S.A., who was detached from Lieut. Williamson's party for the purpose. It proceeded by way of Warner's rancho to Fort Yuma, and up the Gila to the Pimo and Maricopa villages, thence by way of Tucson and Dona

Anato El Paso. The sixth expedition was on the eastern half of the line of the thirty-second parallel, and was commanded by Capt. Pope, U.S.A. It started from El Paso, and proceeded in almost a straight line eastward to Preston, on Red River, passing through Guadalupe Mountains, crossing the Pecos at the mouth of Delaware Creek, and traversing the Llano Estacado for a distance of a hundred and twenty-five miles."

These explorations fully demonstrated the practicability of a road, save over the Sierra Nevada Mountains. Additional appropriations were urged; and in 1854 a hundred and ninety thousand dollars were voted. Other parties were organized; and two of them more fully explored the Sierra and Coast ranges, while the third examined the means of obtaining water for railroad purposes.

However unsatisfactory these various reports were in details, they furnished the ground-work upon which to build the plans which were to be matured, and afterwards carried to a successful completion,—the union of the Atlantic and the Pacific by a band of iron, over which the locomotive should whirl, carrying along its precious freights.

The road has become an accomplished fact; and amid our many new enterprises, our polities, the development of our national resources, and the incidents of

every-day life, its magnitude and importance have been lost sight of.

From this distance of time we can contemplate it, and with profit again recall its grandeur and importance.

CHAPTER XXV.

Omaha at Second Sight.—The Missouri River.—Council Bluffs.

OUR journey over the Union Pacific was interrupted by our trip through Colorado. In our last, we were just leaving Ogden; and from here to Cheyenne we travelled without any thing of interest occurring. The grandeur of the scenery through Echo and Weber Cañons was made more impressive by another view; and some new features were brought to notice. At Cheyenne, the Denver Pacific unites with the Union Pacific, and is the great highway from the line across the continent down to Denver, the thriving capital of Colorado.

As there is little of interest in the road between Cheyenne and Omaha, and as we propose to add a separate chapter on our visit to Colorado, we will hurry on to that city, which forms the eastern terminus of the Union Pacific; and I will add now something more of Omaha, and her *not much* loved sister Council Bluffs, which lies across the river.

My impressions as given in a former chapter were anything but pleasing: so, upon reaching this city Friday afternoon (July 5, 1872), we took lodgings at the Metropolitan Hotel, on Douglas Street, determined to know more of the city. So we strolled around, and surveyed the town. Its streets are broad, laid out at right angles; and the ground rises from the river in such pretty undulations, that the location could not be bettered in many a mile around. There are some very fine brick structures already erected, several business-blocks, the new Grand Central Hotel, and the High-school building on Capitol Hill. The latter, when completed, will be one of the finest compositions in brick that I have seen in the West. The hotel building is creditable, but would seem more in place in Boston or Providence than in this little place. Already three hundred and fifty thousand dollars have been expended upon it,—a sad financial failure. As you pass around the town, every thing bears the marks of “death by overgrowth.” At one time the place seemed to many to be destined to become a city of great importance: so real estate reached fabulous figures, and improvements upon a grand scale were begun, only to be abandoned for the lack of funds. George Francis Train, who now resides at the Tombs, early took up his abode here, and harangued and shouted, until he thought he owned all the land in the city;

and the people were, in their infatuation, thoroughly imbued with his wild schemes. I am informed he never owned a foot of land in Omaha.

Now every thing is under a cloud, and the people seem disheartened. True, the Union Pacific officers are here, and their shops and dépôts; the great iron bridge crosses the river at this point: but all these fail to give to the city any air of business-life. The town is said to contain at present fifteen thousand; but I am afraid they count in the lamp-posts and trees. A ride through the city gives some pleasing views, and out to Camp Douglas shows you a very rich farming-country and some pleasant-looking homes. We are under obligations to Dr. Sisson, formerly of New Bedford, for a long ride through the city and country.

Superintendent Sickels gave us the use of a desk in his private office, and made our stay very pleasant: otherwise, we know we should not have been willing to have remained more than one day in this "mushroom town."

They have here such thunder and lightning as we are not accustomed to at home. Monday morning, about three o'clock, we were awakened by the most deafening thunder, and the greatest display of lightning flashes we had ever been treated to: not in one part of the heavens, but from horizon to zenith, it was one lurid

flame. The rain poured in torrents for more than an hour, and streets and squares were flooded.

The morning seemed as sultry as before the shower, and the mud—oh the mud! We thought it a great storm; but Mr. Boyd, clerk of the hotel, called it only a “baby-shower,” and assured us that we ought to be here sometimes to know what a thunder-shower is. I was aware that they had every thing upon a large scale in Omaha, but was not aware, till now, that they could boast this “the most thundering city upon the globe.”

I once heard two gentlemen—one from New York, and one from Philadelphia—praising each the advantages of their cities; and, after exhausting all arguments, the Philadelphian retorted, “Look here! Now, I would rather be a lamp-post in Philadelphia than an alderman in New York.” So for me, I had rather be almost any thing in an Eastern town than a citizen of Omaha.

THE RIVER.

The Missouri flows by the city, but is of little service as a highway of commerce. I can describe its waters only by comparison with the dirtiest mud-puddle which you ever saw in an Eastern city, and then imagine one a great deal more muddy. It is a capricious stream, changing its channel so often, that it has be-

come a saying, that you never know where to find it in the morning; and this, and the change in the depth of water, causes the ferry and steamboats (of which I have seen two in the river) to change their moorings daily. As there are no wharves, they run the boats high and dry upon the banks for the purpose of landing freight and passengers,—not a pleasant way for passengers, but, no doubt, economical for the steamers. Owing to the late spring, the water is to-day (July 8) thirteen feet above usual low-water mark.

This river is navigable more than two thousand miles above this city at the high stages of water; but the railroads are fast taking the place of river service; and a few years more will see the steamers on the upper waters entirely withdrawn.

But one ought not to leave this vicinity until he has visited the city of

COUNCIL BLUFFS.

By a buss, a slow ferry-boat, and a horse-car, in two hours we made four miles from Omaha to the Ogden House in the Bluff City, as it is called.

There are two good houses here,—the Ogden and the Pacific, the latter of which is by far more centrally located: indeed, one is at a loss to understand why the Ogden was placed so far away from the business-por-

tion of the city: It seems to be, like a great many other houses, a good place for a man to go his "bottom dollar" (as they would say here) in his eagerness to serve the public in keeping a hotel.

The main portion of this city is built upon the low lands bordering the river; but the prettier residences are located in the shady "glens" (as they are called) which lie among the hills which rise to the back of the city. Little now remains of the Mormon settlement here,—probably only a single log-house of the early settlement. The city has moved about a mile to the west of the old town.

The city, like its *sister* upon the opposite bank of the "treacherous Missouri," looks very dull; and all whom you meet complain of *hard times*. The city is situated some two or three miles back from the river, which relieves it from the sight of "that muddy stream."

Gen. Dodge makes this city his home; and many well-to-do families have located here, at what has become within a few years, by the building of the great Union Pacific Railroad, the doorway to the Great West. The three great roads from Chicago all finding their western terminus here, and being the point of transfer to the "bridge-train," makes the town an important railroad centre.

The quarrel which has existed ever since the com-

pletion of the bridge, between the two cities, has greatly injured each; and it would be better for those having the power to at once locate the dépôts than to have the matter left in uncertainty longer. Hearing the claims of persons representing each city, you fail to see the cogency of their reasoning, or the grounds upon which they make their demands. The two cities ought to unite for a common good; for, so long as the quarrel continues, the travelling public are necessarily the sufferers.

We are now a little more than half-way home; but still the journey east of here is made so rapidly, and the country is so well settled, that it seems to be much shorter. At Chicago we shall feel very near to the Atlantic. A day spent in each of the rival cities will amply repay the tourist who seeks to observe the peculiarities of the towns and cities which he may chance to visit; for here are two communities so dissimilar, yet so near together,—Omaha, the seat of Douglas County, the eastern city of Nebraska, and Council Bluffs, the seat of Pottawatomie County, and the western city of the great State of Iowa.

CHAPTER XXVI.

The Great Bridge over the Missouri. — The Transfer Company.

In this chapter I will describe that beautiful structure which spans the Missouri River. The facts were obtained from T. E. Sickels, Esq., the engineer under whose direction the bridge has been built. In this one particular, both the cities of Council Bluffs and Omaha can be proud, and join hands in toasting the

MISSOURI RIVER BRIDGE,

one of the finest in the world. Although erected upon principles heretofore employed, still, in the details, it has some peculiarities; and the whole structure has a grace and lightness, without the want of seeming strength, seldom seen in bridges of this class. The plans were recommended by Gen. Dodge, former chief engineer of the road; but the bridge has been erected under the direction of Mr. T. E. Sickels since his election to that position. To him, therefore, belongs the honor of hav-

ing erected the bridge, making it a success in every way, and that, too, at a saving of more than a hundred thousand dollars from its estimated cost. The bridge will stand as a noble monument of engineering skill, and a source of just pride not only to the company, but also to the numerous friends of the engineer.

The plan of the bridge adopted by the company comprises eleven entirely distinct spans of iron superstructure (each span two hundred and fifty feet in length), elevated fifty feet above high water, and supported on three stone masonry abutments and eleven piers, formed of cast iron columns eight feet and a half in diameter, filled with cement masonry. The foundations of the abutments and the piers extend to the bed-rock underlying the sand, which is found at an average depth of sixty feet below low water in the river. Each span has a play of two inches and a half for expansion and contraction. The original plan has been so modified as to provide for the use of the bridge for highway travel on the same level with the track of the railway; and wrought iron has been substituted for cast iron, in the columns, above high water.

In September, 1868, a contract was made for sinking the iron columns; and the work was begun in February, 1869: but, for various causes, the work was delayed, and afterwards entirely suspended until April, 1871, when

work was again commenced, which has been prosecuted since with great vigor; and, aided by the long continuance of the ice last winter, the bridge was completed sooner than was anticipated. The frozen river furnished a secure foundation for the transportation of the heavy iron work and for the erection of the "false work," as it is termed, which holds in place the iron work until it is fastened securely. The superstructure is of the plan known as "Post's truss," and is made of wrought iron.

Those portions of the iron columns below water were cast in sections of ten feet each, having internal flanges at the ends; and, by means of bolts passing through them, the sections were securely fastened together. The ends of the sections were faced off in a lathe; and a red lead joint was used to make them air-tight. The wrought-iron portion of the column (above high water) is also in sections of ten feet, the sections being fastened together with rivets. The thickness of the iron in this portion varies from half an inch at the bottom to three-eighths of an inch at the top. The thickness of the cast-iron portion is an inch and a half.

The columns were first sunk as far as possible by the application to the top of the column of a weight connected with a lever. The water was then expelled from within the column by the pressure of air forced in by a steam air-pump; and the sand within was excavated by labor-

ers down to about two feet below the bottom of the column, and taken out in small bags or buckets at the top. The air pressure was then withdrawn, and the column sank a distance varying from six inches to eighteen feet and a half, according to the character of the materials through which the column was passing. The latter distance was the greatest descent made by any column in twenty-four consecutive hours.

This process of sinking iron columns is similar to that which has been largely used in Europe and India for like purposes, and for a few bridges in this country. By no other known method can subaqueous foundations be obtained with equal certainty and economy, where the depth necessary to secure stability is very considerable.

The system is especially applicable to the construction of foundations for bridges across rivers like the Missouri, where the river-bed is composed chiefly of sand, and is liable to scour to depths of fifty or sixty feet. In the process of excavating sand from within the columns, lignite rotten wood, and bones of animals, were found at the depth of fifty feet below water, showing that the river-bed has been scoured to that extent at least.

The upper surface of the rock, in every case where the columns reached it, was found to be worn smooth, presenting an appearance very similar to the effect produced on rock by the attrition of sand under great pres-

sure. For greater security, the rock at the base of the columns was in every instance excavated to form a recess into which the column was sunk, whereby any horizontal motion of the base of the columns is effectually prevented.

The difficulties which were anticipated in sinking the columns were surmounted as fast as they arose, so that the work was in no wise delayed. Mr. Sickels was aided by his brother, Mr. Frederick E. Sickels of "cut-off" fame, whose extensive knowledge of mechanical science, and its practice, was ever ready, not only to find a *way*, but, in many instances, to suggest *new and better ways*, of accomplishing the same results: so that the cost was much lessened, while the work was expedited. In seven days, one of the columns was sunk to its rock-bed at a depth of seventy-two feet; the greatest depth to which either of the eleven columns was sunk being eighty-two feet.

The greatest pressure to which the men working in the columns were subjected was fifty-four pounds per square inch in excess of the atmosphere; yet from this extreme pressure, which is beyond precedent in works of this character, no injury or inconvenience resulted to the laborers.

The bridge operations have, fortunately, been free from serious accidents to life or property. It was appre-

hended that the exposure of the laborers in the iron columns to an atmosphere condensed to three times its normal pressure might produce paralysis too severe, in some cases, to yield to medical treatment; but experience has proved that injuries to persons are not necessarily more frequent in the prosecution of work of this peculiar character than in works of a different description, but of like magnitude.

There have been employed in all some five hundred men, two hundred and fifty being the average number; and ten steam-engines have been required for hoisting, excavating, driving air-pumps, &c.

To connect the bridge with the main track of the railroad on the west side of the river, a branch line of road seven thousand feet in length has been constructed. From the river bluff to the west abutment, a distance of seven hundred feet, a timber trestle-bridge, sixty feet in height, has been built, around the timbers of which dirt is being filled as fast as possible: so that, in a short time, a handsomely-formed embankment will be made, which, on the river-end, is faced by a stone-wall for some fifteen feet up the side.

The east approach will be by a continuous grade a mile and a half in length, commencing on the Council Bluffs table-land, and ascending, at the rate of thirty-five feet to the mile, to the east end of the iron bridge. The

total quantity of embankment in this approach is five hundred and fifty thousand cubic yards, which is now almost completed.

The weight of the superstructure is a ton per lineal foot; and it is capable of sustaining a weight of ten tons to the foot, in addition to its own weight; but it is not intended that a greater load than two tons to the foot shall at any time be brought upon it. A train of the heaviest locomotives would weigh about a ton and a half to the lineal foot.

Each wrought-iron piece of the superstructure was tested with a tensile strain of five tons to the square inch of sectional area, before being accepted; and this strain is as great as any portion of the bridge will be required to endure under a load of two tons to the lineal foot.

The total cost of the bridge has been, in round numbers, a million and three-quarters of dollars; and, although trains have been running over it since spring, still the work goes on. It is hoped that a few months will see the structure entirely completed in every detail.

This bridge seemed to be, after all, the link which was to complete the chain binding together the oceans. Even after the rails were joined at Promontory, still the treacherous Missouri had to be passed in a ferry, which had more uncertain ways than the old ferry on

the Connecticut River at Lyme. Now the passage is made in the cars of the Transfer Company.

The Transfer Company was formed for the purpose of transporting passengers and merchandise across the bridge. This has caused a great deal of trouble, especially to shippers; as, for a long time, all freights had to be unloaded from the Eastern cars, and then repacked. Now, by an agreement, and the payment of a sum stipulated to the Transfer Company, freight is taken to the Far West without breaking bulk. All the trouble and anxiety which these two rival towns have had about the terminus of the Union Pacific does not in any wise affect the facts; for, look at the case as you will, the natural and almost necessary terminus of the Union Pacific Road is at Omaha, where must be, as now, their round-houses, their machine and repair shops, their lumber-yards, and their sheds for cars, &c. Whether they (the Union Pacific) should run their trains east, across the bridge, and on the Council Bluff's side receive their passengers, or whether the three Eastern roads should run their trains across the bridge, and set their passengers down in Omaha, ought to be determined by the convenience and interests of the passengers themselves; and when the companies will try to consult the interests of the people, for whom they are created, this

question, like many others, will find a reasonable solution,—one to the equal advantage of all concerned.

Even during my stay West, many changes were effected, which the convenience of passengers demanded; as, for instance, the officers of the Eastern roads now check their baggage on the Omaha side of passengers from the West; and all the roads East sell tickets to Omaha, entitling the holder to be carried across the bridge.

This much for the bridge, which all the engineers who have examined it pronounce a great success; its perfect safety being of especial mention.

CHAPTER XXVII.

Summary View of California.—Advice to Those intending to go West.—The Object of the Series of Letters, “Across the Continent.”—Our Valedictory.

CALIFORNIA AGAIN.

IT was our intention to have said something about California as a residence for invalids, before we closed these series of papers; but all this is so much better done in a book recently published by the Harpers, that we will only refer you to the chapters of Mr. Nordhoff’s “California for Health, Pleasure, and Residence.” We will only add, that as this State has the only *tropical* climate the nation can boast, and indeed the only place with such a climate which our race has found to be a congenial home, all those seeking such conditions can visit Southern California with far more comfort and ease than they can go to Cuba, and be all the time within the United States, protected by the “stars and stripes.” As a place for people looking for a spot

where they can find a better field for their labor, what we have heretofore said must furnish the ground for judgment. On every side, we saw evidences of hopes blasted; and many, very many of those who seek the West would do better in the East: but, on the other hand, in every city and town, and all through the fertile valleys, were men who had braved the hardships of a new settlement, and were at ease in handsome properties. Of all the vast throng who early pushed across the plains, only those of the greatest physical strength succeeded in reaching their destination. Along the whole way, and even to this day, are seen the graves of those who fell in their struggles to reach the land of gold,—the place where their dreams of wealth would be realized. All our observations in California can be summed up in a few words. The cities and larger towns are overcrowded; the mining-camps are filled to repletion; and those who depend upon mining have a precarious living, for Chinamen, who can fare, to them, luxuriantly on ten cents a day, have come in to reduce wages, and dig over again the earth from which the American has obtained the gold as cleanly as he could afford to, and live. The agricultural lands are still open, and Mother-earth, year by year, yields her abundant harvests; but *ranching* is so different from Eastern farming, that it is only through many failures,

that the agriculturist has learned how to win her favors. The vineyard offers more inducements, and lands seemingly unfit for planting have been found well adapted for growing grapes. The wine interest has now become very important,—worthy of a long chapter. In this department, it has only been after many years of trials and failures, that success has been achieved; and Chinamen have come in to do all the work in the vineyard: indeed, they can fairly be said to have saved the wine-growing interests from irretrievable ruin.

I would not draw such a picture as would induce any one to expect, that, anywhere in California, he could find a place where he could command success by the asking. If he goes to the shores of the Pacific, he must work; and working will anywhere bring its rewards. It is a grave mistake for us to give ourselves up to trying to find a place where a living is easily made; for, if there is ever such a place found, I venture the assertion that it will be a place where no one will like to stay. The poor, ignorant Indian spends his days in looking for a place where he will have no hunting (his work) to do, and fancies for himself a *heaven* where the deer will come to his wigwam-door to be made into venison. Do we do much better? Our advice to young men is, to stay where they are; and,

if they are fortunate enough to be on a good New-England farm, *stick* and work, and be assured that their success will be greater than those who *go West*, in a majority of cases. The want of success lies not so much in our location as in the baneful notion which is becoming so inwrought into our American character, in both sexes, that we must get a living without work. Ennoble the workman; make wealth a *means*, and not an *end*,—and then our young men, whether they find themselves in the East or in the West, will command success, and our young women will receive compensation according to their labor, instead of their sex.

But I do not intend an essay upon a subject which is worthy of such sober words and such thoughtful reflection.

To the man of leisure, made independent by invested property, no portion of this earth has more attractions than California, wonderful in her scenery, unparalleled in her trees and plants, pleasing in her varied climates, and with a people noble in their hospitality.

The great ease and comfort with which the journey is made over the Union and Central Pacific Roads warrants us in advising all, even those in delicate health, to make a visit to the Golden State. If there were nothing of interest at the end of their journey, they

would be fully repaid by the pleasure and instruction gained by a ride over these two railroads, across vast prairies, over a great desert, and along the "gold diggings." Beyond these roads, you have the Yo-Semite, the spot of the sublimest scenery which man has yet beheld,—of waterfalls higher and grander than all others, a valley unique in all its surroundings, and in its huge granite hills, rugged and isolated; all making a spot which ought to be visited by every one who can spare the time, and has the means.

In a former chapter we gave our views of the time to make the journey, and estimates of the costs, to which we refer those who intend to make the journey.

And now we must make our

VALEDICTORY.

When labors are accomplished, we always do this; and the approved order is to begin by recalling the past. When we left Providence in April last, we turned to the West for health and recreation. We always had a strong desire to behold the great plains and mountains, the rivers and lakes, the cities and communities, of the West; and especially to visit California, and look with our own eyes upon the Yo-Semite. All has been accomplished. As we pushed on step by

step, we were so much more astonished than we expected by the country and the people, that we were confirmed in the wisdom of our decision formed in Chicago, of trying to make our friends acquainted with the incidents of the trip, and of the country through which we passed, and the people we met, by a series of letters to the press:

Reaching Chicago, and resting for a day, we were forcibly impressed with a feeling of duty to write descriptive letters; and you will all recall our first letter then and there penned, which appeared May 16, in which we laid out our plan, and made you a promise, "in a series of letters to describe not only the points of interest in a journey to California, but to speak of the way to see them."

With our readers remains the verdict, whether or not we have kept the promise then made.

One aim we kept steadily in view; viz., to write for the *people*, that all might go along on the journey. It seemed to us that we could be better understood by taking our readers on the several excursions made, and then talk over what we had seen. To gain a proper idea of the country, one must know the people: hence we have introduced you to those with whom we became acquainted when they were characteristic men.

No words ever cheered us more than those of a man who daily passes our door with kettle in hand for his work, when he said, "I have enjoyed your trip to California; for I could see the country from reading your letters." It was for such men that we wrote,—those who could not spare the time to travel to the Pacific: for them we desired to bring pleasure as well as instruction for their leisure hours. If, for one, we have made his path a *little* brighter, then we are rewarded; and maybe very many have gained some new thought, or stored away some fact before unknown.

Such, then, were the purpose and aim of "Across the Continent;" and the series of letters can only claim to be a faithful description of what was seen, and a record of well-considered judgments from the facts before us at the time.

And, in closing, we must not omit to return many and heartfelt thanks to those friends whom we found throughout the West, and to those new friends made during our journey, to all of whom we are so greatly indebted for favors and courtesies. We would gladly name each; but we fear to do so, lest we omit some one from the long list. Let this, then, be to each a sincere acknowledgment of their kindnesses.

The question has often been asked us since our return home, if we had seen any place that we would

prefer for a residence to Providence. To all we have said, No! The city of our birth, the scenes of our childhood, the arena where has been accomplished the little we have done, has more charms than all the vast West. New England is dear to us; and the land of Roger Williams is dearer. There is a feeling of secure and assured success in our older communities of the East, that is wanting in the West; and it is this which gives stability to our society. Our libraries, our churches, our schools and colleges, are all founded, and around them cluster fond memories. The land we live in is historic. The West has just begun to write its history. The shores of the Narragansett, then, shall make us a home; yet we pray that we may again, some day, go "Across the Continent."

CHAPTER XXVIII.

Down the Denver Pacific Railroad.—The Towns of Greeley and Evans, and their Characteristics.—Our first View of Denver.

As I have heretofore mentioned, the way into Colorado from the Union Pacific is from Cheyenne by the Denver Pacific Railway. The length of this road is a hundred and six miles; and the initial steps towards the building of it were taken in 1867. The capitalists of Denver, and, in fact, the whole Territory of Colorado, gave to this important enterprise their hearty approval; and so liberally did they subscribe for the stock, that, with the aid of Eastern capital and influence, on the sixteenth day of December, 1869, fifty-eight miles from Cheyenne to Evans were opened; and on the twenty-second day of June, 1870, the first passenger-train went over the whole length of the road.

It was a pleasant June afternoon that we coupled our car to the train on this road, and started for Denver. As Cheyenne is in the extreme south of Wyoming,

and our course lies almost due south, we are not long in running out of that Territory and into Colorado.

Soon after leaving Wyoming, the Rocky Mountains come into view, stretching away to the west and south as far as the eye can reach. Long's Peak is a majestic mountain; and about its ever snow-clad summit hang dark and ominous clouds, while to west the sun is just sinking behind a ridge of hills. A grand sight it is, indeed; and long will the scene remain in mind.

Now that we are in Colorado, let us describe its geographical location and limits. The act of Congress creating the Territory gives its boundaries as follows: "Commencing on the thirty-seventh parallel of north latitude, where the twenty-fifth meridian west from Washington crosses the same; thence north on said meridian to the forty-first parallel of north latitude; thence along said parallel west to the thirty-second meridian of longitude west from Washington; thence south on said meridian to the northern line of New Mexico; thence along the thirty-seventh parallel of north latitude to the place of beginning."

The geographical location of Colorado can be more easily found and recognized on the map by an examination of its territorial surroundings. On the north is the Territory of Wyoming and the State of Ne-

braska; on the east, the State of Kansas; on the south, New Mexico; and on the west, the Territory of Utah.

In shape, Colorado is nearly square, embracing an area of 105,708 square miles, or 67,653,120 acres.

A ride of fifty-six miles brings to Greeley,—a thriving settlement, which, although not yet two years old, gave evidences of substantial growth, and an assured increase. It is the centre of the “Union Colony,” who purchased lands in the valley of the Cache à la Poudre River, and on the Denver Pacific Railway, half way between Denver and Cheyenne, April 5, 1870. The population is not far from two thousand; number of buildings five hundred; and there are about fifty thousand acres of land. Number of acres now under irrigating canals, thirty thousand (said canals being respectively twelve and twenty-seven miles long); number of acres under plough at present, about five thousand; water-power canal two miles long and thirty feet wide. The soil is unsurpassed for fertility, and all kinds of crops are grown. There are five churches, two lyceums, one Masonic lodge, one Odd Fellows' lodge, one Good Templars' lodge, four schools, and a large graded school-building of brick, in process of erection. There are about twenty stores and shops, a grist-mill, and mechanics of all kinds. The trade

with the valleys is large, and constantly increasing; while the town and country are rapidly growing.

There will, undoubtedly, soon be other railroads centring at this place, bringing it into closer communication with other cities and towns. One peculiar feature is, that there is no liquor sold in Greeley, and, in all the deeds of land given, a covenant is inserted forever forbidding its sale; and, as a natural consequence, there are no billiard or other saloons along the streets.

A few miles on, we come to Evans, the central town of the St. Louis Western Colony, which located here, March 15, 1861, where the railroad crosses the South Platte River. The air about the dépôt is very different from Greeley. That thrift and neatness so conspicuous there is wanting here. Liquor is sold at Evans; and, if that is the cause, temperance lecturers would only have to take their hearers over the Denver Pacific Railroad to make them all converts. The colony have sixty thousand acres; and, so far as prosperity goes, they stand well with the other settlements.

But we push on, and just after six o'clock we reach Denver, "queen city of the plain." It is the county-seat of Arapahoe County, and the capital of Colorado; is situated on the Platte River, at a point where Cherry Creek forms a confluence with that stream. It is the most important city, west of the Missouri River, east of

the mountains, and has already a population of well-nigh twenty thousand. A stroll about the town on the evening of our arrival gave us the impression of a lively place, quiet and orderly, and a June atmosphere that was delightful.

Our car has been switched upon a siding, and we shall make it *our hotel* while we stay in Denver.

CHAPTER XXIX.

Denver, its History and Situation.—A Grand Mountain-View.—
The Colorado Central Railroad.—The City of Golden.

Now that we have been in Denver a day, we can give a better description of the city. In 1858, a few emigrants named the place Auraria, from the fact that gold was found a few miles east,—on Cherry Creek. This early settlement comprised what is now called West Denver. As the settlement increased, it was called St. Charles, afterwards Denver. The city government was organized Dec. 19, 1859. In 1863, on the nineteenth day of April, a fire swept through the city, destroying property valued at a quarter of a million. Again, in 1864, on the nineteenth day of May, the city was destroyed, but this time by a flood. The next year, the Indians so blockaded the city, that the inhabitants were nearly starved: but, out of all these early catastrophes, she has come; the men who had settled there seeming only the more resolute and determined as the hardships increased. Within the last five years, she has taken

mighty strides forward, and is by far the most *New-England-looking* town that I found west of the Mississippi. She is a centre of a great and increasing trade; and her stores and warehouses are luxurious in their appointments. The streets are broad and well kept; the private dwellings are neat and comfortable; the churches and schoolhouses are scattered through the city, giving the people their advantages. There is here a seminary for young ladies, which has a reputation beyond the Territory.

The city is located on the Platte River, at the junction of Cherry Creek, thirteen miles from the base of the mountains, which offer great protection against the fierce winds. The city is elevated sixty-two hundred and fifty feet above the sea; and the climate is delightfully mild. Denver is situated near the western border of that great plain, which, from the Missouri River, stretches westward for six hundred miles, to the base of the Rocky Mountains. Larimer is the principal street; and upon it are many fine blocks of stores, built of brick, stone, and iron. There are several hotels in the city, which offer pleasant homes to the tourist.

A MOUNTAIN-VIEW.

Standing in the main street of the city, and turning

to the west, we have a mountain-view which is unsurpassed on the continent. To the north we have Long's Peak, and the hills stretching away to Cheyenne; in front of us, we have Gray's Peak; and away to the south we have Pike's Peak, and the hills towards the Arkansas River. The length of this range of mountains is more than two hundred miles; and when you bear in mind that many of them are more than fourteen thousand feet above the sea, are snow-clad the whole year, and that the clouds rest far down their sides, you can gain some idea of the grandeur of the scene.

We lingered long, looking at these mountains. They were enchanting, as the morning sun in its journey from the Atlantic reached their snowy sides, and made them sparkle in his beams: they were even more enchanting when —

“ Came still evening on, and twilight gray
Had in her sober livery all things clad ; ”

for, as the sun left their western sides to sink himself in the Pacific, their grim forms, with the deep, dark furrows which time has ploughed through their rocky faces, seemed to stand out so solemn, that they become mute advocates of Nature's power.

The people of Denver, as a class, are intelligent and thrifty; and there is much wealth accumulated among

the citizens. No city of its size is better supplied with newspapers; and their character is high-toned and cultivated, which cannot be said of the papers published in many a Western hamlet. We found the citizens hospitable and kind; and from many we received especial favors. Tourists will find Denver a city worthy of a visit; and a stay of a week there will create such a love for the town, that it will be left with many regrets.

William N. Byers, editor of "The Rocky Mountain News," the leading paper of Colorado, took the first printing-press into the Territory during the Pike's Peak excitement. He has now one of the most complete printing-offices in the West.

Spending an evening at his hospitable home, we were greatly interested in the descriptions which he gave of the Pike's Peak excitement, when so many thousands toiled across the plains to this section in search of that ever-luring but ever-vanishing phantom,—a fortune. Such struggles as were then made to find and hold ground which covered the golden treasure seem now almost superhuman. The crowd which gathered was estimated at from fifteen to twenty thousand; and how few of that company found their fortunes! The late Horace Greeley visited this scene of excitement early in 1849, and upon a pleasant Sunday addressed the

crowd assembled near by where is now built the city of Black Hawk. There were probably gathered ten thousand people within sight of where he stood. What an audience! What an orator! The excitement, which had become so intense, died away more gradually, partly by new diggings which were found in other sections, and to which the adventurers rushed, until they became scattered through the mountains, and over the plains. Thus, by degrees, those who had toiled so hard to reach this "promised land" found that a fortune was not to be picked up from the ground, and turned their attention to legitimate modes of gaining a livelihood; and to the little settlement of Denver they came to find for themselves shelter and food.

Denver has now gained such a position, that she must remain the metropolis of Colorado.

GOLDEN.

Seventeen miles almost due west of Denver lies the pretty town of Golden, nestled among the foot-hills of the main range of the Rocky Mountains. It is the county-seat of Jefferson County, and contains a population of some two thousand souls. There are two huge mountains of basaltic rock, called North and South Table Mountains, so situated as to completely shelter the

thriving hamlet from the winter winds. It is one of the oldest settlements made in the Territory, and lies upon both sides of Clear Creek,—a position determined by gulch miners, who for a long time found gold in paying quantities along the banks of the creek.

We reached this town over the Colorado Central Road, by its eastern division; and our *hotel* has been opened on a high bank east of the town, of which, from the car-windows, we have a fine view.

COLORADO CENTRAL RAILROAD.

The Colorado Central Railroad leaves the Kansas Pacific about a mile from Denver, and runs sixteen miles west to Golden and the entrance to the cañon, down which rushes Clear Creek; which cañon is found to be the only route by which the great mining section which embraces the cities of Black Hawk, Central, Idaho, and Georgetown, can be reached by rail. The road is already graded several miles up the cañon; and the work is pushed on as fast as possible. The Union Pacific has taken this company under its fostering care; and it must become a very important line. Much credit for its success is also due to the officers of the company, and the chief engineer, Capt. Edward Berthond. They are gentlemen of enterprise and judgment; and such men *compel success*.

Our walk about the town has given us great pleasure; for the place is so prettily located, the scenery is so fine, the people so hospitable. The place is a good one for the tourist to make his *point d'appui*; for here carriages and saddle-horses can be had for the various trips into the mountains. There is a good hotel here, called the Golden House; and the way in which the proprietors keep it entitles them to larger and more extended accommodations. A new hotel building, I was told, was contemplated.

Thus much for our first day's stay in this town with a name telling of the treasure which lies up the cañon, in the huge mountains whose crests rise far away to the west.

CHAPTER XXX.

The Road from Denver to the Mines.—The Colorado Central Railroad up Clear-Creek Cañon.—The Cities of Black Hawk and Central.—The Influence of the Road on Mining.—Prof. Hill's Smelting-Works.

SUPERINTENDENT SICKELS has arranged for a journey up to Central City. Now the stages leave Golden every morning, upon the arrival of the train, for the mining-towns. We are to go by private carriages. We are now at an elevation of sixty-two hundred feet. When we reach Central, we shall be eighty-three hundred feet; and the distance by carriage-road is twenty-four miles: so you can see we are to go up hill by a pretty steep grade.

Early morning found our carriages in waiting; and, by good fortune, I was assigned to that under charge of Capt. Berthoud. The captain, myself, and two of the ladies, were thus comfortably seated for our ride.

We drove out of the *city*, and were soon entering a narrow defile in the mountain, and following a narrow

road which lay along the bank of a little brook. As we enter the defile, we pass the toll-gate, which has been named the "Golden Gate." The June days had covered the hillsides with beautiful flowers; and, as we rode by, many familiar faces seen in our own garden appeared here and there.

By a toilsome journey we reached the summit called Gray's Hill, from whence a peculiarly charming view is had, and thence down to the banks of North Clear Creek, up which we wended our way to Black Hawk City. We were much charmed with the mountain meadows, and the majestic growths of timber through which our road lay. Capt. Berthoud* was familiar with every step of the way; for over it many times he made his way on foot, and with the flowers and rocks, too, he had formed an acquaintance. If there was not *talk* that day on the road, then I forget myself. .

There was a kind of romance in the ride; for up Clear-creek Cañon they were laying a track over which to drive an iron horse,—an event which was to change (oh! so thoroughly change) the mode of going from the plain up to the mining-camps,—now so toilsome and slow; then how easy! and we making the journey on

* Edward Berthoud was born in France. He is an engineer of repute. Has an extensive knowledge of mountain-life. Berthoud Pass was named in his honor.

one of the few days remaining before all that has been so long is changed. Sure, Chapin was right when he exclaimed, "The steam-engine and the electric-telegraph have jerked the nineteenth century a thousand years ahead."

It had always been considered impossible to build a railroad up to the mines ; and, in the earlier days of the Territory, the legislature, as is the wont of such august bodies on the last day of the session, used to annually pass a bill incorporating all the clever spirits of the capital a company to build a railroad up Clear-creek Cañon. What they then deemed impossible is to-day an accomplished fact ; and the steam-engine is puffing up the steep grade into the heart of the mountains. To no one man is this enterprise so much indebted for its success as to Superintendent Sickels of the Union Pacific, who has directed all the vast undertakings. After he finished the great bridge over the Missouri, he naturally turned to Clear-creek Cañon, and resolved to lay a narrow-gauge track along the banks of the roaring stream. Suffice it to say it is all accomplished.

We have reached the first of the *cities* which lie closely joined in the cañon, and are within the corporation known as

BLACK HAWK.

The first object which meets our view is the office of the
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Boston and Colorado Smelting-Works, over which Prof. Hill, formerly of Brown University, presides with so much ability. These extensive works are more generally known as "Hill's Smelting-Works." The professor, besides knowing how to make the ore give up the gold, is said to know how to rule a people: hence he is the mayor of the city.

We felt constrained to leave our carriage to go on to Central, while we sought out the professor. Finding him, we received such a greeting as a professor knows how to give a pupil who has been growing *old*, while he has remained at ease with age.

We received more instruction in the hour which we spent with Prof. Hill in looking over his works than we ever did in the same length of time before. All the many difficulties which had been encountered in reducing the ores were made plain to us, the successful processes shown, the mode of assaying the ores, the process of roasting and forming the "matte," all were explained. We wish the limits of this chapter would permit an extended description; but we must content ourselves by saying that the ores are roasted, and then reduced to a "matte," as it is called, which consists of copper, iron, and gold, and in this state is shipped to Swansea, England, there to be further reduced, and the gold taken out pure and unalloyed.

We cannot delay longer at the "works;" but, with Prof. Hill, we visited a "stamp-mill," which we will describe in our chapter on quartz-mining. We rode through the city, and were told we were in Central. Now, I have no doubt the mayor knows exactly where the line between the two cities is; but I declare I would wager all the gold in Colorado, if I had it, that even he, in a *dark night*, could not find it.

Let me describe this settlement, which goes by the names of

BLACK HAWK AND CENTRAL CITY.

Two huge mountains with almost perpendicular sides; a rushing mountain-stream, the bed of which had been dug over and over, and thrown into irregular heaps; a narrow street, with a walk on one side wide enough for a single file (if all are going in the same direction), the houses set along either side of this highway close together, and their door opening directly into the streets; little shops and little stores; little banking-offices and lawyers' signs, with smelting-works and stamp-mills just behind these houses (all now still); and, up the sides of these mountains, houses perched one above the other, with long steps to reach them, where dwell the miners; and, farther up, the little sheds which cover the entrances to the mines, with this cañon widening out a

little at its upper end, where there are several cross-streets lined with buildings, and a huge brick hotel, the "Teller House," looking down upon you from the shelf of solid rock upon which it stands, and which was made by blasting, with no trees or shade, and dust; (oh the dust!) and then people the towns with from five to seven thousand persons,—and you have the *cities* of Central and Black Hawk.

A walk of a mile brought us to the Teller House,—a new hotel, and kept well. It was erected by H. M. Teller, an old resident of Central, and now president of the Colorado Central Railroad, and is creditable to his enterprise and public spirit.

A drive about the *cities* next morning only confirmed our previous notions. It is a peculiar settlement,—the love of gold alone keeping people up in this high mountain region,—and is by far the largest community in the world dwelling at so high an altitude.

By walking up the hillsides, you can find places where the ore has been taken out from between walls of solid granite,—small seams which have been entirely excavated, and down which you can look, and observe the peculiar formation. The opening would perhaps start as wide as your hand; then it would widen out to several feet; then, again, narrow, and so on until the vein was entirely lost. This last condition the miners call

"*petering out* ;" and, when a mine peters out, it is done for. And my notion is, that a great deal of the *stock* owned in the East must be in *petered-out* mines; for I never heard of a *dividend* having been seen in these parts.

Here were all those famous *lodes* of which so much has been written, and by far more talked, in years ago, when *speculation* was so rife. We will not enumerate their names; for we might cause unhappy memories to rise in our readers' minds, or set them to looking over *finely* engraved and embellished stock-certificates.

But still gold and silver mining is and must remain as the basis of Colorado's prosperity.

The mines are very numerous, and many of them exceedingly rich. Mining is a very attractive business; and, so long as there is fair probability of working mines to advantage, there will be found plenty of men to engage in that industry. Colorado yields now from five to seven millions of dollars in gold and silver per year; and that production will, in a very few years, be increased to twenty-five or thirty millions, and grow from that to an indefinite figure. That result only awaits better and more general means of transportation throughout the mountain-districts, more abundant labor, and cheaper supplies. Gold and silver are her principal articles of export; and the amount has been sufficient,

from the first settlement of the country, to keep the balance of exchange always in her favor.

The better means of transportation are now at hand; and I was assured by Prof. Hill that many mines which now were unworked would pay well when the railroad could be used to transport the ores to some place where fuel could be had cheaply. Now the two items of fuel and transportation forbid the working of only the richest mines, and make the scene one rather of desolation than of prosperity. The opening of the railroad will change all this; and these mountains will again be covered by puffing engines drawing up the precious ores from their hidden recesses.

CHAPTER XXXI.

Idaho Springs. — Georgetown. — The Ride back to Golden. — The Mechanical Enterprises of Golden. — Clear-Creek Cañon. — Peculiar Expressions used in Mining Towns. — The Climate and Parks of Colorado.

WE arranged to return to Golden by way of Idaho Springs, which lies upon the South Fork of Clear Creek. We had to climb up over the “divide” separating these streams ; but the grand and magnificent views which we obtained amply repaid our trouble and labor. Several points reached by us were more than ten thousand feet above the sea-level.

When we had gained an elevated point, from which we saw those mountains which Bierstadt had painted in his famous picture, entitled “A Storm in the Rocky Mountains,” we could see the road which led to the “springs,” just at the foot of the hill, to reach which by carriage we must go a long way back, and, by a circuitous route, get down to that level. There was in our party Stephen W. Downey, Esq., United-States Dis-

trict Attorney for Wyoming, who, used to mountain-climbing, said the way was easy down the hillside. Unhesitatingly I volunteered to accompany him; and away we started down over the rocks, and into the thicket. This was fun — trudging down a mountain!

When nearly to the road, we sat down to rest, and saw our carriage drive by towards the village. When we reached the road, we found ourselves about three miles from Idaho, for which place we set out; for the morning's adventures had given me an appetite which would do justice to a good dinner. It reminded me of what the old Connecticut farmer said, "Now, I always eat codfish for breakfast; for it gives me such a thirst by ten o'clock, that I wouldn't take a hundred dollars for it." Now, if any of my readers desire as valuable an appetite, just *climb* down a mountain a few thousand feet in Colorado.

Just on our way a little we came to a spring, and near by a little log-cabin, from which came an old gray-headed man, who accosted us, and with whom we at once began a talk.

Said he, "Haven't you heard my name mentioned in these parts?"

We assured him that we had not been long in the mountains; at which he quickly caught, and said, —

"Ah! I see. Looking for claims. Now, I tell ye I

have got some of the richest leads you ever saw, and I will sell 'em cheap."

We assured him that we were not in search of mining properties, a fact which seemed to ill suit him. Here lives this old man alone, protecting his various claims, and patiently waiting for some one to come and buy his property,—a possessory right; for this is all he has to sell. He is not alone; for all through these mountains you see just such characters, who are eking out their lives in dreams of wealth.

At last we entered the village, and found our friends all ready to receive us. Going to the register to enter my name, I found that it had been already done by some friend, who opposite had written, "Lost in the woods this day; probably eaten up by bears." Thus was I introduced into the Beebe House at Idaho Springs.

These springs were known to the early miners, and were a favorite place of resort long after all the gold had been dug from the bed of the creek which flows by near at hand. There is still standing the great pine, its branches still offering refreshing shade, under which, for many months, was the great tent, the popular saloon of the section, and over the entrance to which was painted in large letters, "Saint's Rest."

By all means go to Idaho Springs, and at the Beebe House you will find pleasant accommodations. Many

Eastern people find their way up into these mountains during the summer.

A few miles from here, the enterprising community of Georgetown find a home, sheltered on all sides by high mountain-peaks. Extensive smelting-works are located here; and a pleasant and profitable excursion is made to the town, over a pleasant mountain-road.

Our ride back lay along the creek for many miles, the bed and banks of which have been dug over and over for the gold. Mining disfigures the country; for its operations distort and change Nature.

After leaving the creek, we struck into the mountain-meadows, and through rich farms and pastures. So fresh and green were the fields, so luxuriant were the trees, so pure and crystal-like the streams, that he must be blind indeed to Nature's glories who is not enchanted with the ride from Idaho to Golden.

As we enter the city from this side, we pass by the great coal-deposits, from some of which they are now digging fuel; also great beds of fire-clay, from which brick are made, and sent as far away as Utah; and high ledges of a peculiar limestone, which makes a good building-material. Truly Nature has favored this spot. It seems that here must be erected the great reduction-works which shall receive the ore from the hills above, and separate the pure gold from foreign substances.

We were much pleased with a visit to the pioneer paper-mill of the Territory, where is made various grades of wrapping-paper, and where have been made extensive experiments with the soap-weed (*Yucca angustifolia*), which covers the hill-sides. This plant resembles the threaded yucca (*Yucca filamentosa*) of our gardens. So far, the manufacture has not proved a success; although we brought away with us a specimen of fair paper which was made wholly from this weed.

There is a pottery here, as well as two flouring-mills; and some other mechanical enterprises are projected.

CLEAR-CREEK CAÑON.

It was arranged that a large party should go up Clear-creek Cañon to examine the grading which had been already done for the road-bed.

The cañon is narrow; and the river is a raging torrent, pouring over a steep and rocky bed. The walls are high, and the rocks often fantastic in appearance. The formation is volcanic, the strata being thrown into confusion. The trees are tall and thrifty, the June flowers magnificent. The scenery all along the cañon is pleasing, and often wild and fantastic.

The road seems taken from the river-bed by walling its waters into a narrower channel. In some places, a

great amount of heavy blasting has been done; and to get around the mountains, and up the tortuous cañon, the road is, of course, very crooked. The work so far has been a success: the road-bed has stood the spring freshet, and the iron will be laid at once. Before we left Golden, the iron began to arrive; and, since our return East, the track has been pushed forward, until now you can take the cars at Golden, and be landed at Central City; and by another season Idaho Springs and Georgetown can be reached by rail. The day spent in Clear-creek Cañon was full of enjoyment, and we shall always rejoice that we visited it before the engineer completely conquered Nature with his iron bands. The scenery will repay a visit.

THE CHURCH AT GOLDEN.

During one of our walks about the town with a friend, passing a little church, we inquired the denomination. He at once replied to our question by saying, "Hydraulic Presbyterian." It was some time before we could make out that it was a Baptist chapel. There was certainly a quaintness about this designation; and the *water* was given due prominence. There are some other expressions peculiar here. You often hear a man say, "I'll put a *caribou* head on you," which is

equivalent to saying that you will give a man a whipping. "Plumb" is a word which is always used to intensify, as "plumb sure," "plumb good," &c. If a man fails in business, "he has gone up the flume," or "he has petered out." When they catch a thief, they "corrall him." When a person dies, "he passes in his checks." I was shown the tree to which, in earlier days, they used to hang the offenders; and my friend said, "You see that tree yonder: well, I have seen many a rascal pass in his checks there." If a man leaves his land or his mine, and another comes in and takes possession, he "jumps the claim," as they say. "You bet" is on every one's tongue; and the *natives* put it in between their words in peculiar manner, and it seems to take the place of our Eastern oaths. I might go on, but these will give you some of the peculiarities of the speech of the people who live in these mining-camps.

There is a narrow gauge-road called "The Denver and Rio Grande Railway," which runs south, and is now completed as far as Pueblo on the Arkansas River.

An excursion from Denver over this road, making stops along at the points of interest, will amply repay the time required. This road goes by the title of "Baby Railroad" in Denver and along the line. From the city of Denver, there is a line east (the Kansas

Pacific) to Kansas City, and thence across Missouri to St. Louis."

From what I have thus stated, it will be seen that Denver is an important railroad centre; and, before many years, Golden will be a city from which will diverge many important lines.

Before I leave Colorado, I must say something about the climate and the mountain parks.

The climate is proverbial for its mildness and remarkable healthfulness. There is no steady and intense cold; and almost every day in winter, in the middle of the day, the most delicate can be out of doors; and there are very many days when you sit by an open window, and look upon the mountains to the west covered in snow far down their sides.

Time permitting, excursions must be made into the

PARKS.

Only a general description can be given; and any one proposing to make the journey had better consult some resident, and obtain guides upon whom reliance can be placed.

A peculiar feature in the topography of Colorado is its great mountain-locked parks. They are great basins, or depressions, with surface and soil more or less

similar to that of the plains, but entirely surrounded by lofty mountains. Their elevation is from seven to eight thousand feet above the sea. They are well watered and abundantly timbered, have a delightful climate throughout most of the year, and are exceptionally healthful. All abound in mineral springs and minerals of great variety. Owing to the great altitude, they are adapted to the culture of the hardier agricultural products only.

Beginning in the south, the first is San Luis Park, drained by the Rio Grande del Norte, which flows south, and then south-east, into the Gulf of Mexico. The San Luis is the lowest and the largest of the parks. It has been settled for many years by Mexicans, and has a population of eight or ten thousand people.

South Park (Valla Salada of the Spaniards) comes next. It gives rise to the South or main Platte, which flows out to the north-east, then eastward to the Missouri. The park is crescent-shaped, with the outer curve to the west. It is twenty to forty miles wide, and sixty or seventy miles long,—a vast meadow, which supports thousands upon thousands of cattle. Its rim abounds in gold and silver mines; and rich gold placers are worked in many parts of it.

Middle Park is the next, equally divided by the

fortieth degree of latitude. It is drained to the west by Grand River, and thence, by the Great Colorado, to the Gulf of California. The exit of the Grand is by a cañon of sublime depth and awful grandeur. The outline of the park is irregular, but nearly circular; and it is about fifty miles in diameter. Projecting spurs of the lofty mountains that enclose it shoot far out toward its centre. It is yet unsettled, and the most delightful summer resort imaginable for those who want to go beyond the restraints of civilization.

North Park is near the north boundary of the Territory, and gives rise to the North Platte, which flows first towards the north, and then east to the Missouri. It is a little circular basin, twenty or thirty miles in diameter, the most timbered and the loftiest of any. It has no settlements, and but few visitors; but its natural attractions are not excelled.

The parks are separated from one another by narrow but lofty ranges of mountains. The entire chain can be easily traversed from north to south, or from south to north, and presents the most varied, romantic, and beautiful scenery.

SOCIETY IN COLORADO.

It was an agreeable surprise to find such cultivated

society in the larger communities. Far to the south, we have a large proportion of Mexicans, and some of the old towns, where this people can be studied in their better aspect; for to the west they seem to go down in the scale, and are little better than the Digger Indians. Among the mining-towns we have a mixed population,—a set of hardy fellows, whose mission seems to be to level the great mountains. They all hold "claims, or leads," and, to hear them talk, you would think them rich beyond the dreams of Croesus. Indeed, in these communities, I would like to see a resident who did not own a "claim." He would indeed be a man uncontaminated with gold. In the larger communities, like Denver, Golden, and a few others, there is an air of New-England cultivation and thrift, rarely found in Western cities. There is in Denver a class of whom you will gain a better idea by a story. Among the miners there are, of course, some who get rich, and then seek the capital, where to spend their money, and enjoy fashionable life. Of such was our hero. A good brother, who having tried New York and the *teaching* of a flock, and failing, deemed his duty to be to open a school for *young ladies*; and *somebody* called him to Denver. After he had made the preliminary arrangements, he cast around for pupils, and was directed to the *fashionable* house upon a *fashion-*

able street, occupied by our retired miner; and, calling, thus ran the conversation:—

“I was told, sir, that you had some young ladies in your family who desired to attend private school. I have removed from New York to your beautiful city of Denver, and have taken rooms at No. — in — Street. I am a Presbyterian minister, and propose to run my school upon religious principles” —

“Stop, stop!” cried our *miner-gentleman*. “Stop, stop! I don’t know much about religion anyhow; but I tell you I’m orthodox to the backbone, and my children must go to an orthodox school. I can’t buy your *claim* to-day. Haven’t any children here. Good-morning, sir!”

The old miner never had had time to examine the tenets, but *honestly* wished to be considered sound according to the D.D.’s; and, now that his life was *petering* out, he desired to have his children educated in the *true faith*. Oh, how numerous are such examples the world over! What fools do tenets and creeds make of us!

But now comes the time when we must leave Colorado; and, on the morning of the fourth day of July, we coupled our car to the train bound for Cheyenne. During our stay in Colorado, we had found many friends; and many were the regrets which arose as the

housetops and church-spires of Denver faded from view. Ever green in our memories will remain the incidents and pleasures of our sojourn in the cities and hamlets, the cañons and mountains, of "fair Colorado."

CHAPTER XXXII.

Quartz-Mining in California and Colorado.—The Treatment of Colorado Ores.

IN previous chapters, I promised to describe quartz-mining, which at this day has almost entirely superseded placer and hydraulic mining. As I have said, placer-mining was the earliest mode in which the loose gold was removed from the surface-soil by means of the inexpensive rocker, pan, &c. Hydraulic-mining is placer on a gigantic scale; and, while the first mode is but little practised now, the latter is carried on, in some localities, to a profit. On the road to the Yo-Semite, you will find Chinamen at work with those early implements, rocker, pan, &c.; and from the Central Pacific Railroad, at Gold Run, you can see an example of hydraulic-mining in the valley below the road. Quartz-mining is now the general mode of obtaining gold. Many have been the failures, sad the disappointments; but it seems in California to have been reduced to a legitimate business. Many veins or leads where former

owners have lost vast sums of money are now, under new and more economical management, paying largely. I believe that here lies the secret,—as, in fact, in all industries,—the economy with which the mine is worked. All through the mountains of California, and in Nevada, are great stamp-mills *pounding out* the gold from the rock. The rock, in these states,—pure quartz, through which is mingled gold and silver,—is blasted out, and taken to the surface, thence is run through a crusher, which reduces it to a fine dirt and small pieces.

Now it goes to the “stamps;” and let me see if I can describe these.

Water must be had in abundance, and is generally brought in a flume into the mill, where it empties into the *box*, and is conducted out through a race. There is a heavy framework of timber, and long, upright sticks, to the end of which a heavy iron face is attached; which sticks are made to work up and down in guides. A shaft—upon which are cam-pulleys, or, generally, merely a bar inserted through the shaft—is made to revolve by means of steam or water power, and, by the cam-motion, raises the stamps; and, letting go, the stamp falls with force to the bottom of the box. The box extends the whole width of the framework, and into it is shovelled the crushed ore; and the stamps pound away upon the stone and dirt in the water, which is

made thick and muddy. On the side of the box towards the race are holes along the whole length, out of which the muddy water flows into a gutter, which carries it to a spout in the middle, from which it runs into the race.

Now let us look at this race to see how they take from this mass of muddy water the gold.

There are large copper plates which cover the bottom of the race. Upon them they spread a thin coating of quicksilver, which takes up the gold as the water flows over it. There are several of these plates, which are placed one after the other down the race ; and at the end of the last is a blanket, made of wool, and through which the water flows. When it is thought the quicksilver has absorbed all the gold that it will, the plate is removed, and the *amalgam* is scraped off, and a fresh coating of quicksilver is put on. Occasionally the blanket is rinsed out in a tub of water, which is poured back again into the box. The gold is taken from the amalgam by subliming the quicksilver, as before described.

There are some stamps where the quicksilver is placed in the box in liquid form, and the whole mass of ore, water, and quicksilver, is agitated until an amalgam is formed. By this process, water is saved,—a desideratum in some localities.

I think from my description you can form a pretty good idea of a stamp-mill as seen in California.

QUARTZ-MINING IN COLORADO.

I saw a stamp-mill just like the one described, at Black Hawk, in operation upon ore composed of quartz and gold and silver. But by far a majority of the Colorado ores cannot be worked in this manner at all; for if the sulphides of iron or copper are present, then a very different process must be resorted to. Here lay the failures of so many mining-enterprises in Colorado. In California, they say that professors and students have always failed as miners, and that only *practical* miners have been successsful. But here it was a professor, trained in a laboratory of a college, who found out by patient toil and study just what was required, and brought success out of a seeming ruin. At the Boston and Colorado Smelting-Works, at the head of which is Prof. Hill, you can see the ores of Colorado successfully reduced. The ores from the mines are purchased by samples which are nicely assayed, and the value per ton thus determined. The ores are then placed in large heaps, in form of a pyramid, over a loose pile of firewood. A match is applied; and, as the mass becomes heated, the sulphur is set free, and burns out. This

process is called roasting ; and the sulphur supplies fuel for some three months in the usual sized piles. In making up a pile, the coarse is packed first, and over the outside the fine ore is covered ; then this ore, freed of the sulphur, is crushed, and is smelted in a furnace in a similar manner to iron ore ; and the product is a *matte*, which is composed of iron, copper, gold, and silver. In this form, a matte, it is transported to Swansea, England, where the final reduction takes place, and the several component products are saved. Experience has proved that there is a saving in having the matte sent to England, over reducing it in Colorado. This last process is a simple one, and could easily be done at the same place where the matte is produced. The *secret* rests in making the *flux*, as it is termed, so that a product freed entirely of sulphur may be produced.

There are building large works at Georgetown, and others projected at Golden, to deal with these ores ; and, if they succeed, the mining-interests of Colorado will brighten, and those Eastern people who now have only a stock-certificate to show may not have, after all, made so poor an investment, when at their *friend's earnest solicitation*, they "*invested in a gold-mine.*"

With all my reading, before I visited these sections where mining is carried on, I failed to get a correct understanding of the subject ; and I hope I have so de-

scribed the operations, that my readers may have gained a general idea of the different kinds of mining, called placer, hydraulic, and quartz, and the difficulties which arise in treating Colorado ores.

With this chapter I close my journeyings, and close my note-book. I trust my writing has not been amiss; for I have had before me continually one aim,—to give only correct information that would aid my readers in planning a trip from the Atlantic to the Pacific, and that they might know what to see, and how to see it.



APPENDICES.

THE ROUTES TO THE YO-SEMITE.

I. — VIA MARIPOSA.

From San Francisco, by rail, over the Central Pacific Railroad, to Merced City.

Thence by stage or carriage to Mariposa, forty-two miles.

Thence by carriage to White and Hatch's, eleven miles.

From here to Clark's, fourteen miles.

Thence on horseback, to Alder Creek, six miles and a half; on to Empire Camp, three miles; thence to Westfall's Meadow; thence to Inspiration Point, five miles, or to Glacier Point, seven miles; from Inspiration Point to the Hotels, seven miles and a half to eight miles, or from Glacier Point, six miles and a half to seven miles and a half.

II. — VIA BIG OAK FLAT.

By rail to Stockton, and thence to Copperopolis, thence by stage or carriage, by Chinese Camp and Big Oak Flat, to Gentry's; thence by horseback down a steep trail to the Valley, seven miles and a half.

III. — VIA COULTERVILLE.

By rail to Merced City; thence by carriage, *via* Snelling's to Coulterville; thence *via* Crane Flat to Gentry's, and by horseback into valley, seven miles and a half.

NOTES. — From Clark's, the Mariposa Grove of Big Trees is reached on horseback by a journey, in going and returning, of fourteen miles.

The whole distance from San Francisco is not far from two hundred and fifty miles.

Avoid dealing only with parties, or their authorized agents. Do not let the drivers carry you out of the way to serve *hotel*-keepers. A private carriage is generally more agreeable than the mail-stages. Go into the valley by way of Mariposa, and out by one of the other routes. Consult preceding pages. A carriage-road is building by way of Mariposa into the valley.

TABLE OF THE ELEVATION OF PEAKS AND
PASSES IN SIERRA NEVADA MOUNTAINS.

							Feet.
Mono Pass	.	.	.	.	.	.	10,765
Sonora Pass	.	.	.	.	.	.	10,115
Silver Mountain Pass	.	.	.	.	.	.	8,793
Carson Pass	.	.	.	.	.	.	8,759
Johnson Pass	.	.	.	.	.	.	7,339
Georgetown Pass	.	.	.	.	.	.	7,119
Donner Pass	.	.	.	.	.	.	7,056
Henness	.	.	.	.	.	.	6,996
Yuba Gap	.	.	.	.	.	.	6,642
Mount Whitney	.	.	.	.	.	.	15,000
Red State Peak	.	.	.	.	.	.	13,400
Mount Pass	.	.	.	.	.	.	13,227
Castle Peak	.	.	.	.	.	.	12,500
Silver Mountain	.	.	.	.	.	.	10,934
Wood's Peak	.	.	.	.	.	.	10,552
Pyramid Peak	.	.	.	.	.	.	10,120
Downieville Buttes	.	.	.	.	.	.	8,400
Onjumi	.	.	.	.	.	.	8,378

NOTE.—These elevations are taken from the Reports of the Geological Survey of the State of California.

The Central Pacific Railroad crosses the Sierras by Donner Pass, and the road-bed at the summit is 7,042 feet, so that the original level of the pass was lowered only 14 feet, and the actual cutting-away was probably less than that.

MOUNTAINS AROUND THE YO-SEMITES VALLEY.

Popular Names.	Indian Name.	Signification.	Height, feet.
El Capitan,	Tu-tock-a-mu-la,	The Cry of the Crane,	3,300
Cathedral Rocks,	{ Poo-see-nah Chuck-ka,	{ A large Acorn Cache,	2,660
Three Brothers,	Pom-pom-pa-sus,	{ Mountains playing	
Sentinel Rock,	Loya,	Leap-Frog,	3,830
Royal Arches,	To-coy-æ,	A Signal Station,	3,043
Washington Column,	Hun-to,	{ An Indian Baby-Basket,	1,800
South Dome,	Te-sai-yak,	The Watching Eye,	1,875
Rocks near Yo-Semite Fall,	{ Um-mo,	{ The Goddess of the Valley,	4,737
Glacier Point,	Pa-til-li-ma,	The Lost Arrow,	3,000
Mt. Watkins,			3,200
Cloud's Rest,			3,900
Cap of Liberty,			6,034
Mt. Starr King,			4,000
			5,600

THE WATERFALLS.

The Bridal Veil,	Po-ho-no,	Spirit of Night-Wind,	630
Yo-Semite,	Yo-ham-e-ta,	Great Grizzly Bear,	2,634
Vernal,	Pi-wy-ack,	Sparkling Water,	350
Nevada,	Yo-wi-ye,	Twisting Water,	700
South Fork Fall,	Il-lil-ou-ette,	The Beautiful,	600

NOTE.—To compare these altitudes, Niagara Falls, 164 feet on American side, 150 on Canadian side. Mt. Washington, 6,224 feet. A mile, 5,280 feet. Valley level, 4,000 feet, which must be added to the elevations given of the mountains to find altitude above the ocean.

THE YO-SEMITE DECLARED A NATIONAL PARK.

IN 1864 Congress enacted, that the “cleft, or gorge,” in the Granite Peak of the Sierras—estimated in length fifteen miles, with its various spurs and cañons, and one mile back from the edge of the precipice on all sides—be granted to the State of California; “that the said State shall accept this grant upon express conditions that the premises shall be held for public use, resort, and recreation; shall be inalienable for all time; but leases not exceeding ten years may be granted for portions of said premises.” Under this act, and that of California confirming and accepting the trust, commissioners were appointed, who took possession of the valley.

Mr. J. M. Hutchings has resisted their right to take possession, and resorted to the law courts, as well as to legislature and Congress. Upon a final hearing of this cause before the Supreme Court of the United States, and after full consideration, the Court has made its decision, confirming the grant to California, and declaring the title of Hutchings void. They lay down the

following law, which, applied to the facts relative to all the settlements now made there, would seem to settle the matter beyond all question, and thus make this valley a national park.

SUPREME COURT, U.S.

No. 435.

DECEMBER TERM, 1872.

J. M. HUTCHINGS, *Plaintiff in Error* } *In Error to the Supreme
v. F. F. Low and others, Commissioners, &c.* } *Court of the State of California.*

1. A party, by settlement upon lands of the United States with a declared intention to obtain a title to the same under the pre-emption laws, does not thereby acquire such a vested interest in the premises as to deprive Congress of the power to divest it, by a grant, to another party.

2. The power of regulation and disposition over the lands of the United States, conferred upon Congress by the Constitution, only ceases, under the pre-emption laws, when all the preliminary acts prescribed by those laws for the acquisition of the title, including the payment of the price of the land, have been performed by the settler. When these prerequisites have been complied with, the settler, for the first time, acquires a vested interest in the premises occupied by him, of which he cannot be subsequently deprived. He then is entitled to a certificate of entry from the local land-officers, and ultimately to a patent for the land from the United States. Until such payment and entry, the pre-emption laws give to the settler only a privilege of pre-emption in case the lands are offered for sale in the usual manner; that is, the privilege to purchase them, in that event, in preference to others.

3. The United States, by the pre-emption laws, do not enter into any contract with the settler, or incur any obligations, that the land occupied by him shall ever be put up for sale.

They simply declare by those laws, that, in case any of their lands are thrown open for sale, the privilege to purchase them in limited quantities, at fixed prices, shall be first given to parties who have settled upon and improved them. The legislation thus adopted for the benefit of settlers was not intended to deprive Congress of the power to make any other disposition of the lands before they are offered for sale, or to appropriate them to any public uses.

• • • • •
6. The act of Congress of June 30, 1864, granting the Yo-Semite Valley and the Mariposa Big-Tree Grove to the State of California, passed the title of these premises to the State, subject to the trust specified therein, that they should be held for public use, resort, and recreation, and be inalienable for all time.

HETCH-HETCHY VALLEY.

FOR the benefit of those tourists who desire to extend their journey, and behold more of the beautiful scenery of the Sierras, I will mention Hetch-Hetchy Valley. It is reached by a good mountain-trail from Hardin's Ranch, which is situated on the route to the Yo-Semite by way of Big-Oak Flat. A visit to this valley will amply repay the time and fatigue, and show, that, out of the usual routes of travel, there is scenery grand and imposing,—another valley, almost another Yo-Semite.

Mr. John Muir thus describes it as seen in his visit there in November last:—

“This valley is situated on the Main Tuolumne River, just as Yo-Semite is on the Merced. It is about three miles in length, with a width varying from an eighth to half a mile. Most of its surface is level as a lake, and lies at an elevation of thirty-eight hundred feet above the sea. Its course is mostly from east to west; but it is bent northward in the middle, like Yo-Semite. At the end of the valley, the river enters a

narrow cañon, which cannot devour the spring floods sufficiently fast to prevent the lower half of the valley from becoming a lake. Beginning at the west end of the valley, where Hardin trail comes in, the first conspicuous rocks on the right are a group like the Cathedral Rocks in Yo-Semite, and occupying the same relative position to the valley. The lowest member of the group, which stands out well isolated above, exactly like the corresponding rock of the Yo-Semite group, is, according to State geological survey, about twenty-two hundred and seventy feet in height. The two highest members are not so separate as those of Yo-Semite. They are best seen from the top of the wall, a mile or two farther east. On the north side of the valley there is a vast perpendicular rock-front eighteen hundred feet high, which resembles El Capitan of Yo-Semite. In spring a large stream pours over its brow, with a clear fall of at least a thousand feet. East of this, on the same side, is the Hetch-Hetchy Fall, occupying a position relative to the valley like that of Yo-Semite Fall. It is about seventeen hundred feet in height, but not in one unbroken fall. . . . The wall of the valley above this fall has two benches fringed with live-oak, which correspond with astonishing minuteness to the benches of the same relative portion of the Yo-Semite wall. . . . The surface of Hetch-Hetchy is diversified with groves and

meadows in the same manner as Yo-Semite; and the trees are identical in species. . . . We have no room here to discuss the formation of this valley: we will only state as our opinion that it is an inseparable portion of the great Glacier Cañon of the Tuolumne, and that its level bottom is one of a chain of lake-basins extending throughout the cañon, which have been, no great time ago, filled up with glacial drift. The Yo-Semite is a cañon of exactly the same origin."

TREES AND PLANTS GROWING IN AND AROUND THE YO-SEMITÉ VALLEY.

<i>Adiantum pedatum</i>	.	.
<i>Aspidium argutum</i>	.	.
<i>Acer macrophyllum</i>	.	.
<i>A. glabrum</i>	.	.
<i>Aconitum nasubum</i>	.	.
<i>Alnus viridis</i>	.	.
<i>Abies Douglasii</i>	.	.
		(The Douglas fir).
<i>Azalea occidentalis</i>	.	.
		(The swamp cheese).
<i>Arctostaphylos glauca</i>	.	.
		(Manzanita).
<i>Adenostema fasciculata</i>	.	.
 <i>Boykinia occidentalis</i>	.	.
<i>Bahia confertiflora</i>	.	.
 <i>Calamagrostis Canadensis</i>	.	.
<i>Cheilanthes gracillima</i>	.	.
<i>Comandra umbellata</i>	.	.
<i>Chænactis achillœfolia</i>	.	.
<i>Cystopteris fragilis</i>	.	.
<i>Cornus Nuttallii</i>	.	.
<i>Ceanothus integerrimus</i>	.	.

<i>C. divaricatus</i>	.	.	.	.
<i>Epilobium angustifolium</i>	.	.	.	.
<i>Frangula Californica</i>	.	.	.	.
<i>Glyceria nervata</i>	.	.	.	.
<i>Hulsia brevifolia</i>	.	.	.	.
<i>Hellenium grandiflorum</i>	.	.	.	.
<i>Hosackia grandiflora</i>	.	.	.	.
<i>Lilii</i>	.	.	.	.
				(Many varieties).
<i>Libocedrus decurrens</i>	.	.	.	.
<i>Nuphar advena</i>	.	.	.	(The common yellow pond lily).
<i>Philadelphus Californicus</i>	.	.	.	.
<i>Pinus ponderosa</i>	.	.	.	(The yellow pine).
<i>P. contorta</i>	.	.	.	(The pine found in the highest
<i>P. aristata</i>	.	.	.	belt of vegetation in the Sier-
<i>P. Jeffreyi</i>	.	.	.	ras).
<i>P. Sabiniana</i>	.	.	.	(Sugar pine).
<i>P. Lambertiana</i>	.	.	.	.
<i>P. Coulteri</i>	.	.	.	(The pine with the largest cone).
<i>Picea grandis</i>	.	.	.	.
<i>Populus balsamifera</i>	.	.	{	(Balsam-poplar, mistaken for cot-
			{	ton-wood).
<i>Phragmites communis</i>	.	.	.	.
<i>Pellœa densa</i>	.	.	.	.
<i>P. Bridgesii</i>	.	.	.	.
<i>P. mucronata</i>	.	.	.	.
<i>Polypodium Californicum</i>	.	.	.	.

<i>Pentstemon latus</i>	.	.	
<i>Pteris aquilina</i>	.	.	(The brake seen in New England).
<i>Quercus tobata</i>	.	.	{ (The burr-oak ; looks much like a New-England elm).
<i>Q. Garryana</i>	.	.	(White-oak).
<i>Q. densiflora</i>	.	.	(Narrow-leaf oak).
<i>Q. sonomensis</i>	.	.	(The black-oak).
<i>Q. chrysolepis</i>	.	.	
<i>Q. vaccinifolia</i>	.	.	
<i>Rudbeckia Californica</i>	.	.	
<i>Rhamnus Menziesii</i>	.	.	
<i>Rubus Nutkanus</i>	.	.	(The raspberry).
<i>Rosa blanda</i>	.	.	(The wild rose).
<i>Rhus diversiloba</i>	.	.	
<i>Sequoia gigantea</i>	.	.	(The big tree).
<i>S. sempervirens</i>	.	.	(The redwood).
<i>Sidalcea malvæflora</i>	.	.	
<i>Sphagnum</i>	.	.	(Peat moss).
<i>Spraguea umbellata</i>	.	.	
<i>Silene compacta</i>	.	.	
<i>Tetranthera Californica</i>	.	{ (The laurel, the wood of which is capable of a high polish).	
<i>Veratrum Californicum</i>	.		

NOTES.—It will be observed that most of the trees and plants named are not found east of the Mississippi. In the flowers, yellow will be found to be a prevailing color. There are many poison-

ous plants and shrubs, especially a shrub-oak ; and care must be taken to wear gloves when collecting specimens. The guides know little of botany ; and the popular names vary so in different localities, that it is hard work to identify the plants.

I trust my readers will not lose their collections as I did. I had collected many specimens, and had arranged them very carefully in the bureau in my room at the hotel, placing them nicely for preservation. One day soon after, when going to my room, I met the chambermaid on the stairs ; and she said, "I gave your room a good cleaning to-day, sir ; and I took all the dry leaves and things out of your bureau."—"Where are they ?" I exclaimed, a feeling of pain coming over me. "I threw them away, sir !" I tried to explain to her their value to me ; but, no doubt, that chambermaid is to-day at a loss to know why "the man in No. —" filled up his bureau "with dry leaves and things."

The attempts to introduce California plants into our gardens have been, for the most part, failures ; and, even in our flower-houses, they do not seem to thrive.

TREES AND PLANTS OF THE ROCKY MOUNTAINS.

THE following list contains the principal trees and plants found in these mountains; and for its completeness I am indebted to Capt. Berthoud, Chief Engineer of the Colorado Central Railroad.

<i>Abronia fragrans</i>	
<i>Acer circinatum</i>	(Vine maple).
<i>A. negundo</i>	(Box elder).
<i>Achillea millefolium</i>	(Common yarrow, or milfoil).
<i>Aconitum reclinatum</i>	(Monk's-hood).
<i>Actaea rubra</i>	(Red baneberry).
<i>Aira pallens</i>	(Red-grass).
<i>Allium triflorum</i>	(Onion, or leek).
<i>Alnus incana</i>	(Speckled alder).
<i>Amelanchier alnifolia</i>	(June berry).
<i>Amphicarpaea monoica</i>	(Wild-hog peanut).
<i>Anemone multifida</i>	(Many-cleft anemone).
<i>A. Virginiana</i>	(Wind-flower).
<i>Aquilegia cerulea</i>	(Blue columbine).
<i>Arabis falcata</i>	(Rock-cress).
<i>Arctostaphylos uva-ursi</i>	(Trailing arbutus).

<i>Arenaria</i>	.	.	.	(Sandwort, several varieties).
<i>Argemone Mexicana</i>	.	.	.	(Mexican poppy).
<i>Arnica Montana</i>	.	.	.	(Arnica).
<i>Artemisia Canadensis</i>	.	.	.	(Wormwood, white sage).
<i>Aster Novæ-Angliæ</i>	.	.	.	(Common New-England aster).
<i>Astragalus caryocarpus</i>	.	.	.	(Milk-vetch).
<i>A. filifolius</i>	.	.	.	
<i>A. hypoglottis</i>	.	.	.	
<i>A. mollissimus</i>	.	.	.	
<i>A. plattensis</i>	.	.	.	
<i>Berberis aquifolium</i>	.	.	.	(Mahonia, blue barberry).
<i>Betula glandulosa</i>	.	.	.	(Rocky-mountain birch).
<i>Ceanothus ovalis</i>	.	.	.	(New-Jersey tea, or red-root)
<i>Cerastium arvense</i>	.	.	.	(Field chickweed).
<i>Cheiranthus Cheiri</i>	.	.	.	(Wall-flower, yellow).
<i>Chimaphilla maculata</i>	.	.	.	(Prince's-pine).
<i>Clematis Viorna</i>	.	.	.	(Leather-flower).
<i>C. Virginiana</i>	.	.	.	(Common virgin's-bower)
<i>Convolvulus arvensis</i>	.	.	.	(Bindweed).
<i>Corallorrhiza multiflora</i>	.	.	.	(Coral-root).
<i>Corydalis aurea</i>	.	.	.	(Golden corydalis).
<i>Cypripedium candidum</i>	.	.	.	(White lady's-slipper).
<i>Delphinium album</i>	.	.	.	(White larkspur).
<i>D. menziesii</i>	.	.	.	(Larkspur).
<i>Dodecatheon meadia</i>	.	.	.	(American cowslip).
<i>Draba verna</i>	.	.	.	(Whitlow grass).

<i>Echinospernum Lappula</i>	.	.	(Stick-seed).
<i>Ellisia Nyctelea</i>	.	.	
<i>Epilobium spicatum</i>	.	.	(Willow-herb).
<i>Erigeron compositum</i>	.	.	
<i>Erysimum cheiranthoides</i>	.	.	(Worm-seed mustard).
<i>Euphorbia corollata</i>	.	.	(Flowering spurge).
 <i>Frasera Carolinensis</i>	.	.	(American columbo).
 <i>Gilia fragrans</i>	.	.	.
<i>G. pulchella</i>	.	.	.
<i>G. rosea</i>	.	.	.
<i>Glyceria</i>	.	.	.
 <i>Ipomea leptophylla</i>	.	.	
 <i>Jamesia Americana</i>	.	.	(Mountain shrub).
 <i>Lilium Canadense</i>	.	.	(Wild yellow lily).
<i>Linnæa borealis</i>	.	.	(Twin flower).
<i>Linum Boottii</i>	.	.	(Yellow flax).
<i>L. pericum</i>	.	.	(Blue flax).
<i>Lippia cuneafolia</i>	.	.	(Fog-fruit).
<i>Lithospermum longiflorum</i>	.	.	
<i>Lupinus perennis</i>	.	.	(Wild lupine).
 <i>Malva moschata</i>	.	.	(Musk mallow).
<i>Mentha borealis</i>	.	.	(Horsemint).
<i>M. piperita</i>	.	.	(Peppermint).
<i>M. viridis</i>	.	.	(Spearmint).

<i>Mertensia</i>	.	.	.	(Lungwort).
<i>Mimulus Jamesii</i>	.	.	.	(Monkey-flower).
<i>Moneses uniflora</i>	.	.	.	(A very fragrant mountain flower).
<i>Nasturtium palustre</i>	.	.	.	(Marsh-cress).
<i>Nycterum lobatum</i>	.	.	.	(Yellow-weed).
<i>Œnothera</i>	.	.	.	(In varieties).
<i>Obione canescens</i>	.	.	.	
<i>Pentstemon ceruleum</i>	.	.	.	(Beard-tongue).
<i>Phlox Drummondii</i>	.	.	.	(A showy annual of our gardens).
<i>P. Subulata</i>	.	.	.	(Moss pink).
<i>Polemonium ceruleum</i>	.	.	.	(Valerian).
<i>Populus angulata</i>	.	.	.	(Bitter poplar).
<i>P. grandidentata</i>	.	.	.	(Cottonwood).
<i>P. tremuloides</i>	.	.	.	(American aspen).
<i>Primula farinosa</i>	.	.	.	(Primrose).
<i>P. rosea</i>	.	.	.	
<i>Ranunculus</i>	.	.	.	(Buttercup).
<i>Rhus aromaticata</i>	.	.	.	(Fragrant sumach).
<i>R. typhina</i>	.	.	.	(Staghorn sumach).
<i>Ribes aureum</i>	.	.	.	(Buffalo or Missouri currant).
<i>Rubus Nutkanus</i>	.	.	.	(White flowering raspberry).
<i>Sedum luteum</i>	.	.	.	(Stone moss).
<i>Silene acaulis</i>	.	.	.	(Moss catchfly).
<i>Sida coccinea</i>	.	.	.	(Red-flowering sida).
<i>Spiræa opulifolia</i>	.	.	.	(Meadow-sweet).

<i>Spiranthes cernua</i>	.	.	(Ladies'-tresses).
<i>Thermopsis Montana</i>	.	.	(Yellow pea).
<i>Tradescantia Virginica</i>	.	.	(Spiderwort).
<i>Verbena Aubletia</i>	.	.	(Verbena).
<i>V. bracteosa</i>	.	.	
<i>Viola cucullata</i>	.	.	(Violet,— Heart's-ease).
<i>V. palmata</i>	.	.	
<i>V. pubescens</i>	.	.	
<i>V. rotundifolia</i>	.	.	
<i>Yucca angustifolia</i>	.	.	{ (Soap-weed, resembles our garden Yucca, <i>Y. filamentosa</i>).}

NOTE.— Many of the above plants will be recognized as favorites in our gardens. There are many plants not as yet identified and named, as there has been no complete flora made of the United States west of the Mississippi. You will observe how much more brilliant the blossoms of the same plant are up on the mountains than in the valleys. In the higher belts of vegetation, Nature has constructed her plants and trees to adapt them to their situation. Let me urge my readers to become acquainted with the trees and plants as they journey on; for in them they will find true friends.

TABLE OF ALTITUDES IN COLORADO.

TAKEN FROM THE MOST ACCURATE SURVEYS.

	Feet.
Denver	5,250
Golden	6,200
Central City	8,300
Idaho	7,800
Georgetown	8,450
Caribou	9,200
Boulder	5,550
Greeley	4,750
Cheyenne	6,130
Colorado City	6,350
Pueblo	4,400
Trinidad	5,800
Tarryall	9,900
Fairplay	10,000
Twin Lakes	9,000
Hot Springs in Middle Park	7,700
Boulder Pass	11,700
Berthoud Pass	11,020
Argentine Pass	13,000
Breckinridge Pass	11,000

	Feet.
Long's Peak	14,300
Gray's Peak	14,251
Mount Lincoln	14,190
Mount Harvard	14,270
Mount Yale	14,078
Pike's Peak	14,216
Summit of Divide where Rio Grande Railway crosses .	7,040

The extreme limit of timber-growth in this region is about eleven thousand feet above the sea, though, upon favorable exposures, it occasionally extends some hundreds of feet higher. That, however, is about the common average. Elevations above that altitude all come under the common term of "snowy range," or "snowy peaks;" and they hold more or less snow upon them the year round. They number, in Colorado, thousands of peaks; and hundreds of them are of about the average height of the highest enumerated in the above paragraph. It is doubtful whether the loftiest have ever yet been measured. Lakelets forever covered with ice are common among their craggy summits.

COLORADO.—WEATHER RECORD AT DENVER FOR 1872.

	Highest.	Lowest.	Mean.	Rain and Melted Snow.
January,	58	—26	22.7	.84
February,	64	—9	34.7	.29
March,	78	4	39.4	2.44
April,	83	25	49	2.38
May,	89	35	61.3	3.21
June,	97	49	69	1.58
July,	93	54	71	2.42
August,	94	52	72	1.71
September,	90	35	62	1.47
October,	88	19	53.6	1.30
November,	69	—5	35.8	.81
December,	60	—8	28	.32

The rainfall in 1870 was 12.65 inches; in 1871, 12.53 inches; and, in 1872, 18.77 inches.

ORES PURCHASED BY PROFESSOR HILL.

THE Boston and Colorado Smelting Company,—better known as Prof. Hill's,—at Black Hawk, have, during 1872, purchased the following amounts of ore: From Clear Creek County, 2,100 tons, for which \$320,000 were paid; from Gilpin County, 6,950 tons, for which \$178,000 were paid; and from Park County, 600 tons, for which \$88,000 were paid; making a total of 9,650 tons, and \$586,000. This amount of ore was reduced to 640 tons of matte, which was shipped to Swansea, England. The average yield of the ore treated in 1871 was \$80 per ton; and, estimating it at the same this year, the product of the works for 1872 have been \$788,000. This would give an average value to the matte of about \$1,230 per ton.

HISTORY OF MINING IN COLORADO.

THE GENERAL FEATURES OF THE MINING REGION, ITS SITUATION, AND EXTENT.

THE region now embraced within the limits of Colorado first began to attract public attention in 1858. A party of miners from Georgia, under the leadership of Green Russell, are credited with the first gold-discovery in what was then known as the "Pike's Peak Country." This discovery was made on Dry Creek, a few miles south of the present site of Denver, and was followed by others on Cherry Creek, and at different points along the Platte River above the confluence of these two streams. Reports of these discoveries, of course greatly exaggerated, were not long in reaching the Missouri River; and, immediately thereafter, excited gold-hunters began to wend their way towards the new Eldorado. The trials, vicissitudes, and sufferings of these early pioneers, have furnished abundant material for most thrilling history.

The progress and development of the mining-interests

of this region are thus described by a gentleman, a resident in the mining-districts.

The first important gold-discoveries were followed by a large influx of population to the mining-region. During the first two years, operations were confined to the placers in various localities, and to the washing of surface dirt of a few gold lodes in the vicinity of what is now Central City.

During the succeeding year, explorations were rapidly and widely extended; and discoveries were made, at intervals, throughout the whole foot-hill region, from Wyoming (then Nebraska) on the north, to New Mexico on the south,—a distance of more than three hundred miles. This mining-region has a width varying from forty to sixty miles, hence including about fifteen thousand square miles. Subsequent explorations and developments have established the following facts relative to this great mining-region of Colorado; viz.,—

First, that the plain country adjacent to and along the entire length of the eastern base of the mountains is underlaid with inexhaustible beds of coal, of the lignite class, which is of such superior quality as to adapt it for all requisite uses, whether for steam, smelting, or domestic purposes. Some of these coal-deposits are found in horizontal, others in vertical beds, varying in thickness from fifteen inches to fifteen feet. Border-

ing these coal-measures are deposits of fire-clay, equal in quality to any in the world, and in quantities sufficient to supply the wants of the nation. The same belt furnishes supplies of limestone, sandstone, gypsum, and iron ore. This is the outlying belt of the mineral region.

Second, that the lower foot-hills, for a distance of ten or twenty miles from the plains, are traversed by copper-bearing veins, in nearly all of which a trace of gold or silver, or of both, is found, and in paying quantities in some of them ; and,

Third, that back of these, extending to the Snowy Range, and including some districts beyond the range, are found the great gold and silver bearing veins, which, together with the placers, have hitherto constituted the bullion-producing source of Colorado. These veins extend east and west, showing many changes of character in different localities, and are believed to exist along the range, with possibly some interruptions, from the northern to the southern boundary of Colorado. Previous to 1865, the region of country immediately surrounding Central City was the great gold-producing section, by its placer and lode mines. The only other sections of Colorado which produced gold were Park, Lake, and Summit Counties, where rich placer-mines were and are yet worked successfully. The

mines worked in these sections were gold-mines, producing gold containing but little silver. In 1865, however, rich silver lodes were discovered in Summit County; and in 1866 others in Clear Creek County, more particularly in the vicinity of Georgetown. The latter have so steadily increased in production, as to make them the great rival of the gold-mines of Gilpin County in the production of the precious metals. In 1870, in Boulder County, silver-lodes were discovered, and worked up to this date successfully. In the autumn of 1871 extensive deposits of silver-ore were opened up in Park County; also gold and silver mines in Conejos County.

Nearly all the gold-veins carry a large amount of silver; many of the silver-veins carry some gold; and others carry copper, lead, and zinc. A large area of the mineral region has not yet been explored; and new discoveries are made every year.

Lack of an economical and intelligent system of mining, lack of reasonable and adequate reduction works, excess of prodigal and unscientific experiments, and lack of railroad facilities, have, in times past, militated against the profits of mining in Colorado. All these impediments have either disappeared, or are rapidly disappearing. Mining has been systematized, and is conducted far more economically than hitherto.

The cost of reducing refractory ores has declined from \$75 to \$25 per ton. The completion of extensive smelting-works, already projected at the base of the mountains, will make a still further improvement in this particular. Railways are completed, and in operation, to and along the base of the mountains, and are in process of construction to the very heart of the mining centres.

Finally, unlike many other mining-regions, this entire belt is well wooded and watered. Situated under the shadow of the Snowy Range, summer showers fall upon it; and the streams are constantly swollen during the summer by the melting snows. The thousand little valleys among the foot-hills up to the Range are fertile; and the grassy glades afford the finest pasturage in the world. The season is short for the cultivation of cereals; but soil and climate are unexcelled in adaptation to the dairy, the growth of vegetables, and culture of small fruits.

Gilpin County, the smallest in extent of all the counties, and, perhaps, least adapted to agriculture, had, during the past season, thirteen hundred and twenty acres of land under successful cultivation,—this apart from the grazing-lands.

Aside from this belt, which has been briefly outlined, there are known to be deposits of gold and silver in the

parks, and beyond the Snowy Range. There may be mines as rich, perhaps richer, west of the region described than any yet discovered within it. That region is yet to be explored and prospected.

In addition to the mines above noted, there are, in various parts of the Territory, soda and salt springs, from which an almost unlimited yield might be derived, and some of which have already been made available. As soda and salt are both used in the reduction of ores, their presence in the Territory is of great importance in connection with the mining-interest. When it is taken into consideration that Colorado has had no other exportation than from her mines, since the settlement of the Territory, it cannot fail to impress the reader with their immense wealth, and how important an influence their present highly-successful developments are having on her rapid and unexampled growth and prosperity. Their present yield has been nearly doubled in the past two years.



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OCCIDENTAL HOTEL,

Montgomery St., San Francisco, Cal.

THE OCCIDENTAL HOTEL

Is located on Montgomery Street, the fashionable promenade of the city, and has a frontage of 275 feet, extending from Bush to Sutter Street, by a depth of $168\frac{1}{2}$ feet. The hotel is four stories high, and is one of the most substantial buildings in California. The foundation walls are six to eight feet thick, of the best quality of cut stone, laid in cement and lime. The hotel contains

412 ROOMS.

Several of the Private Suites have Bath-Rooms and Closets within each Suite.

There are also BATH-ROOMS on every floor.

The hotel is furnished with the latest and most improved styles of furniture.

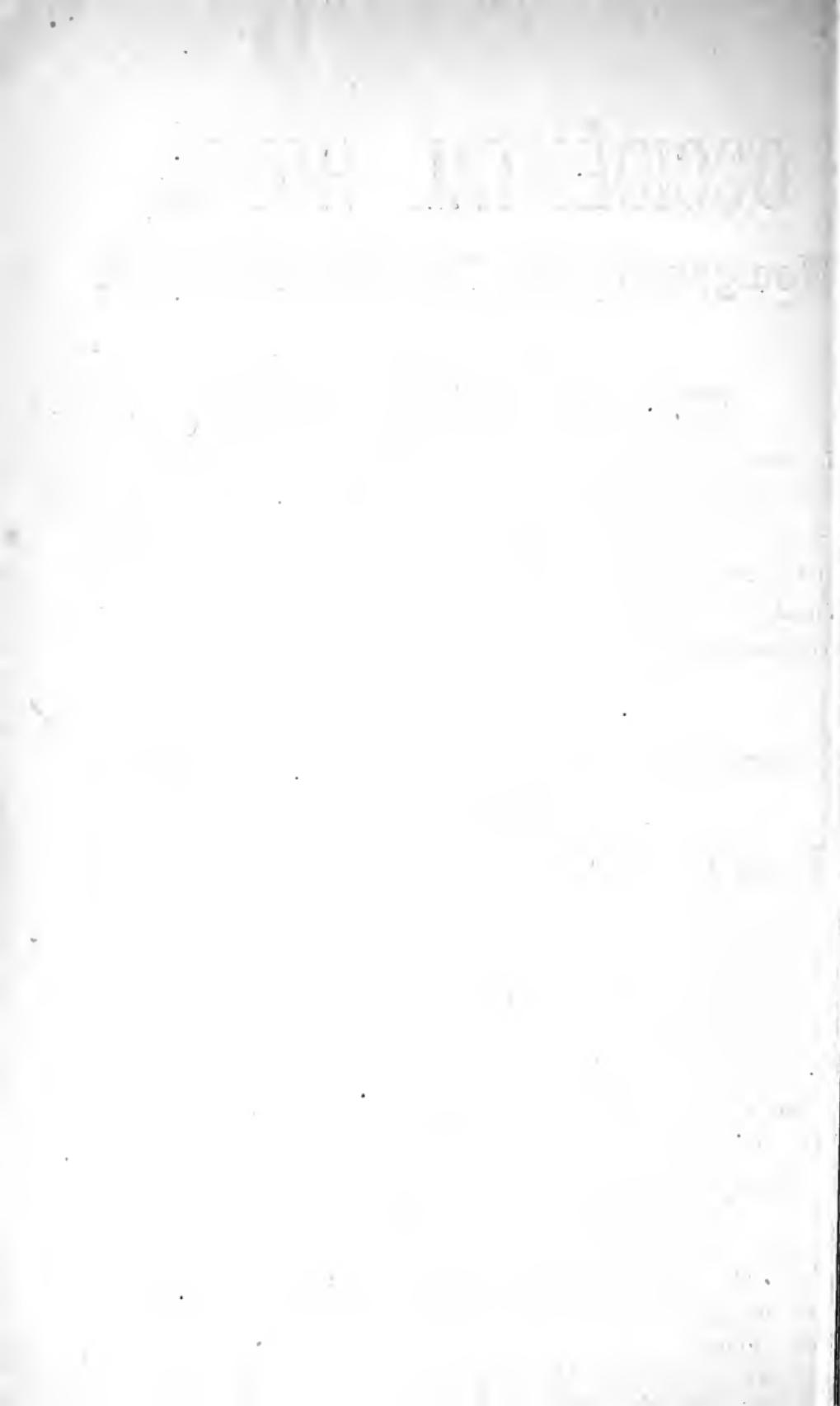
The table is always plentifully supplied with the choicest fruits, and all the delicacies which an abundant market can furnish.

There is a splendid billiard-room and bar-room, a steam laundry, barber's shop, and all the other appointments necessary for a first-class hotel, connected with this establishment.

One of OTIS BROTHERS'

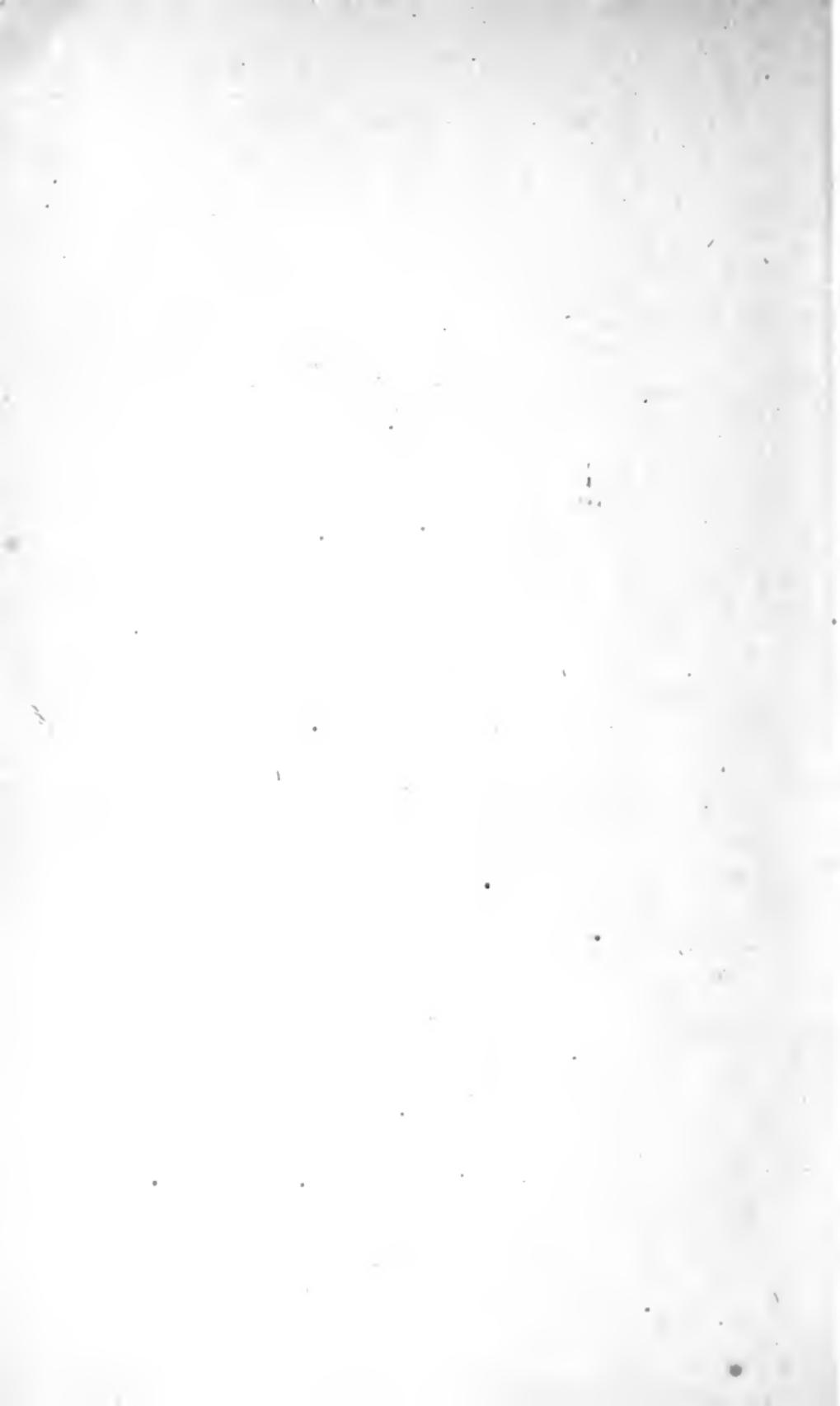
PASSENGER ELEVATORS,

of the latest improved style, has lately been placed in the hotel, near the office, and runs from 6, A.M., to 12, P.M., for the accommodation of the guests.



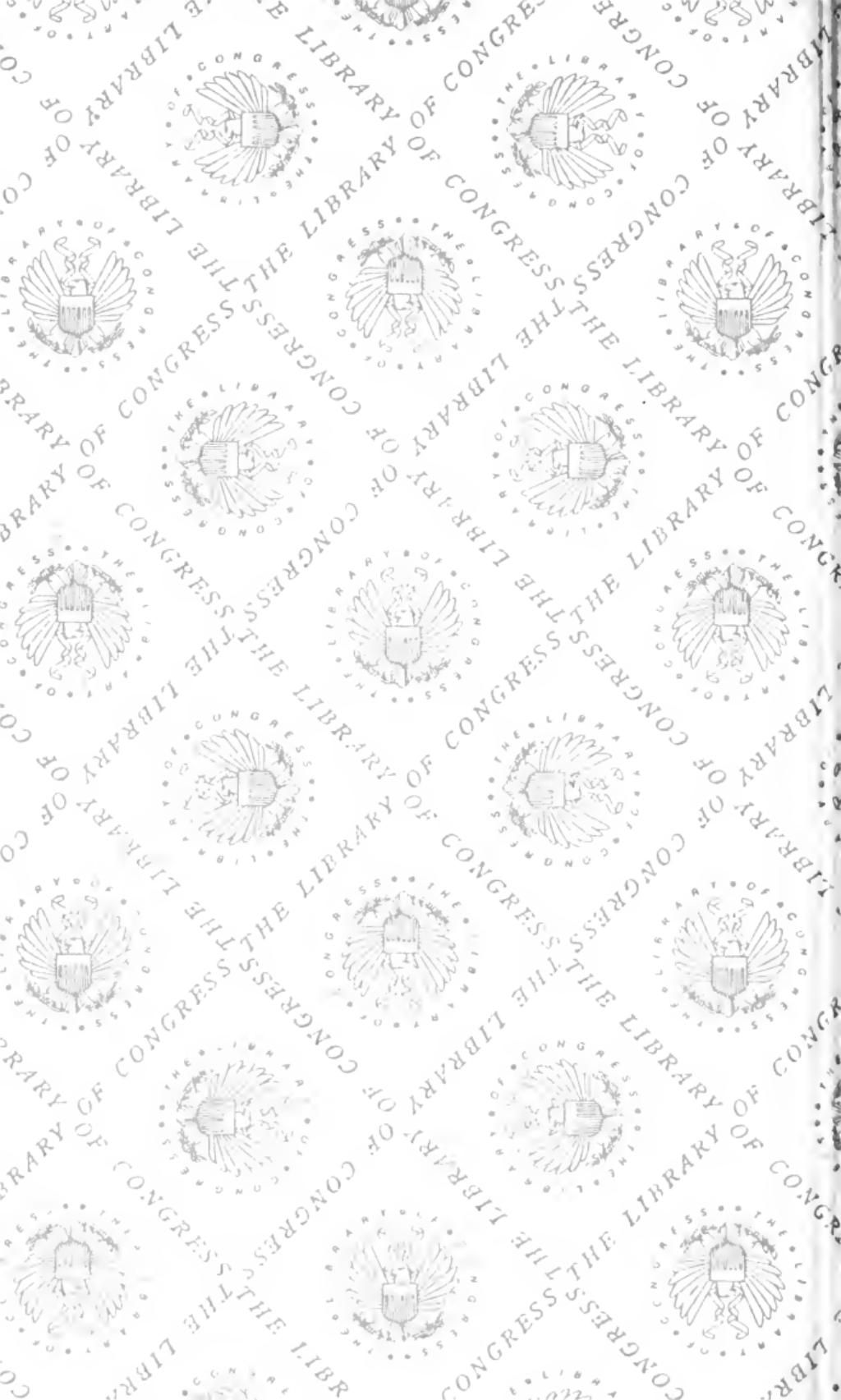












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